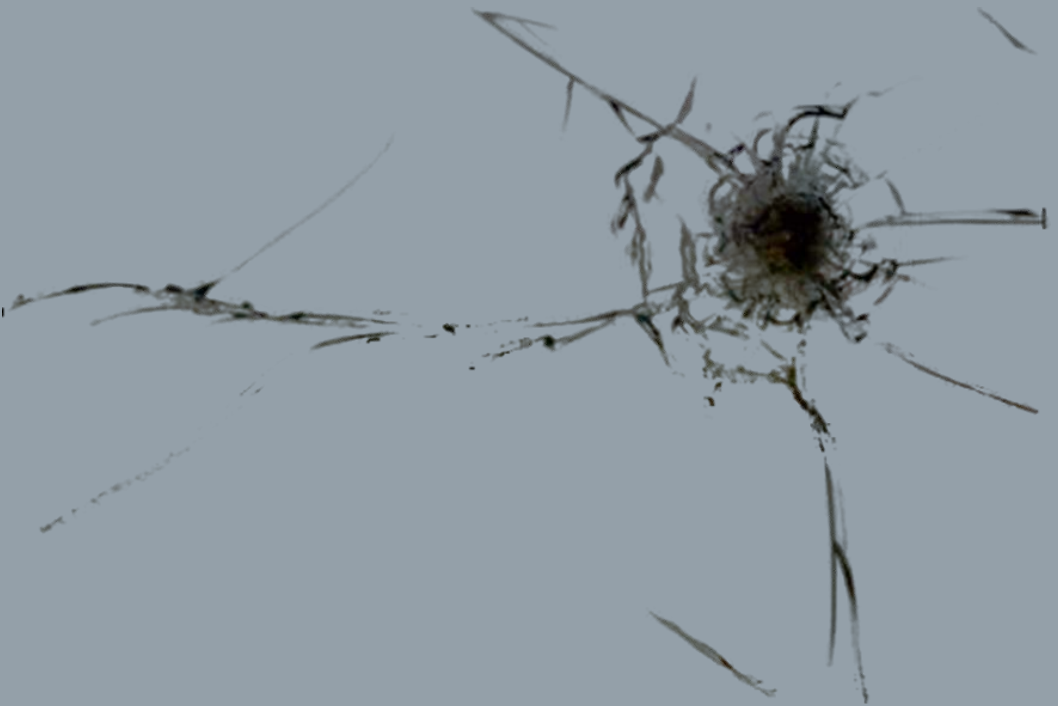# Soldiers under threat:

An exploration of the effect of real threat on soldiers' perceptions, attitudes and morale

Cornelis Evert van den Berg

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An exploration of the effects of real threat on soldiers' perceptions, attitudes and morale.

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Sociale Wetenschappen

Proefschrift

ter verkrijging van de graad van doctor
aan de Radboud Universiteit Nijmegen
op gezag van de rector magnificus **prof. mr. S.C.J.J Kortmann**,
volgens besluit van het College van Decanen
in het openbaar te verdedigen op **dinsdag 16 juni 2009**
om **15.30 uur** precies

door

Cornelis Evert van den Berg
geboren op **6 januari 1965**
te **Zeist**

Soldiers under threat:
An exploration of the effects of real threat on soldiers' perceptions, attitudes and morale.

An academic essay in
Social Sciences

Doctoral Thesis

To obtain the degree of doctor
from Radboud University Nijmegen
on the autority of the Rector Magnificus prof. dr. S.C.J.J Kortmann,
according to the decision of the Council of Deans
to be defended in public on Tuesday June, 16 2009
at 15.30 hours

by

Cornelis Evert van den Berg
Born on 6 January 1965
in Zeist

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Introduction

Threat in the military

Wars in the last decade of the 20th century and especially the 'new' wars of the first decade of this century have produced considerable casualties among NATO and UN soldiers. The website iCasualties.org (December 2008) shows that since March 2003, more than 4.500 coalition soldiers have died in Iraq, while over 1000 soldiers have died in Afghanistan since October 2001. Without a doubt, soldiers are aware of the life-threatening circumstances of deployment. Death is in fact a very salient aspect of the mission. Death or the threat of death shows up in roadside warnings, in briefings, is made salient by protective equipment, and possibly through experience with victims of violence among opposing military forces, the civil population, or among one's own troops.

The Netherlands Armed Forces have recently been deployed in mission areas such as Bosnia and Herzegovina (currently considered as low risk), Kosovo (low to high risk), Iraq (medium to high risk), and Afghanistan (medium to high risk). How have they dealt with the issue of death? And what consequences does the threat of death have for military functioning? The current dissertation focuses on these questions. The dissertation reports studies that examined 1) Dutch soldiers during deployment with the Stabilization Force in Iraq (SFIR); 2) Dutch and Turkish officers at either the Dutch or Turkish Defence Academies; 3) Dutch soldiers working in the International Security Assistance Force to Afghanistan (ISAF) in 2002; 4) Soldiers of the International Stabilization Force in Afghanistan (ISAF) as members of Task Force Uruzgan (TFU). We assess level of fear of death and perceptions of death. We also investigate the effect of death awareness on perceptions of self, international co-workers, and local population.

Acceptance of Death: Political and Individual Perspectives

It has been suggested that awareness of death is an inherent component of the military. As it is related to sacrifice for the greater good, death in the military is considered of considerable significance (Kummel, & Leonhard, 2004). A 'good' military death (Ben-Ari, 2005) is often associated with symbolic victory of pride and loyalty over corporeal fear. Consistent with this idea, Bartone & Ender (1994) found that soldiers apparently adjusted more effectively to the loss of comrades when leaders had taken the time to eulogize the deceased and to relate the loss in positive terms to the pursuit of broader mission goals and national interests. It seems important, therefore, that the meaning of the mission is clearly agreed upon and understood by policy makers and society, and is mirrored by soldiers' understanding of the meaning of the mission and of their profession.

The political context of peace missions

In contemporary debate on military affairs, the notion of 'acceptable risks' is very central (Van der Meulen, & Soeters, 2005). This qualification pertains to what is thought to be a responsible level of risk, given the political goals and the military means of a specific mission. It pertains to the rationale of the number of casualties the responsible authorities are willing to accept. As politicians, the public, and the military are well aware of the deadly consequences of deployment of military force, emphasis is put on the significance of the sacrifices being made.

Generally described as 'peacekeeping', 'security assistance', 'stabilization force', or as 'humanitarian relief', current missions do clearly stress meaning and honour of serving. The mission's meaning is further enhanced by ethical standards that are expected to be upheld by the soldiers. They are held accountable for their behaviour during deployment by regulations determined by International Humanitarian Law and the Geneva Conventions. Mission specific Rules of Engagement specify how soldiers should act and what the limitations to the use of violence are.

Moreover, current missions involve more than strictly military activities. Conflicts or wars are no longer settled by means of force alone. In current missions, the battle is also about the moral high ground rather than the geographical high ground. In what can be seen as essentially a psycho-cultural war (Scales, 2004), strategies are developed to win the 'hearts and minds' of the local population, and play a vital role in winning peace.

Finally, modern peacekeeping or peace enforcing missions are not likely to be performed by one single nation, but consist of multinational armed forces under the flag of the UN, 'coalitions of the willing', or other alliances like the present NATO mission in Afghanistan or the European Union mission in Bosnia and Herzegovina. Thus, political perceptions force soldiers to not merely fight to defend their homeland, but to collaborate and identify with soldiers of other nations with possibly other cultural backgrounds, and hence other values. The soldiers' ability to do so is of importance to achieve the mission ends efficiently and effectively, and to strengthen political relations.

Individual level

The emphasis on regulation, on non-violent participation, and on international collaboration, considerably enhances the political viability and significance of the mission, and thereby enhances the chances that the risks associated with the mission are deemed "acceptable". Still, despite the acceptance of casualties by society, soldiers have to accept the risks for themselves as well. The possible deadly consequences for the soldiers involved are clearly reflected in the events of recent years, where Dutch soldiers in peace missions got killed in Cambodia, Bosnia and Herzegovina, Kosovo, and even more visibly in the current missions in Iraq or Afghanistan. Hence, the mortal dangers

of the military profession cannot be denied, and this holds true while the soldiers are expected to serve in accordance with the values and expectations of their government and of their society.

For individual soldiers, the mortal hazards of their profession posit various questions. Soldiers have to answer for themselves what it means to accept the risk of dying and to which extent they accept this risk. The answer to this question may be important to keep one's psychological equilibrium. To keep this psychological equilibrium, soldiers have to come to terms with what a 'good' military death means. The answer to this question goes beyond the matter of coping with fear and is rather existential as it involves the meaning of self-sacrifice.

Previous military studies on the influence of threat have mainly focussed on fear. Classical studies among soldiers who were deployed during the Second World War revealed that fear was common among soldiers, but that they were afraid to admit this fear that they referred to as 'fear of fear' (Boring & Van de Water, 1943; Dollard, 1944; Grinker & Spiegel, 1945). In more modern studies the possible adverse effects of fear are emphasized, like combat stress reactions (Noy, 1991; Solomon, Weisenberg, Schwarzwald and Mikulincer, 1988), the relation between threat and morale (Manning, 1991; Shamir, Brainin, Zakay & Popper, 2000), as well as threat and cohesion (Griffith & Vaitkus, 1999; Griffith, 2002). For instance, Shalit (1988) found that battle-experience resulted in greater fear of letting down their subordinates or comrades than of death, whereas prior to combat-experience, fear of death was their main fear.

Acknowledging the importance of understanding what motivates soldiers' actions, I wonder whether these studies succeed in answering the more existential question how soldiers cope with the confrontation with life-threatening circumstances, and the sacrifices involved, the soldiers' equanimity with a 'good' military death, or the mere threat of it. Further studying these issues may help broaden our insight in such phenomena as soldiers' 'fear of fear', the function of morale, and international collaboration. Also, given the changing circumstances of Dutch military operations, it is imperative to understand the psychological and social dynamics that play a role in dealing with threat during international peace missions.

Conceptual and Empirical Background
The purpose of the present dissertation is to document and extend the insights into the effects of existential threat as experienced by soldiers during deployment on their mission related attitudes. These attitudes vary from soldiers' acceptance of the risk of dying, motivation for the mission, task-performance and collaboration with others. To explore the effects of death threat on soldiers' mission related-attitudes, I have sought situations in which the possible deadly consequences of the military profession are

apparent. Soldiers who are deployed in peacekeeping mission were taken as object of study.

I have found the motivation and inspiration to posit the question of the effect of death threat on soldiers' mission related attitudes in my career as an officer and a military psychologist, as well as from social psychological theories. Terror management theory (Solomon, Greenberg & Pyszczynski, 1991; Greenberg, Pyszczynski & Solomon, 1997; Pyszczynski, Greenberg & Solomon, 1999) in particular encouraged me to study this theme in greater depth. Terror management theory incorporates a firm theoretical framework for explaining the influence of death threat on human functioning. I will expand on the basic assumptions and the predictions that can be derived from this theory in order to connect the results of studies of threat to relevant questions for the military context, during today's missions. Before turning to an overview of the research in this dissertation, I will summarize the main tenets of terror management theory and research.

Terror management theory

Controlled psychological studies on the effects of individual's enhanced awareness of death, labeled as 'mortality salience', stem from the so-called terror management theory (Solomon, Greenberg & Pyszczynski, 1991; Greenberg, Pyszczynski & Solomon, 1997; Pyszczynski, Greenberg & Solomon, 1999). Terror management theory states that the awareness of one's mortality has a significant effect on one's attitudes and appreciation of values. Cultural worldviews, the collections of these attitudes and values, are argued to provide the individual with a sense of order, stability and meaning, and a sense of what is valued and what needs to be done by the individual to be appreciated, admired, and remembered. Self-esteem, is defined here as the extent to which a person feels of value, and hence constitutes an indicator of the extent to which one is admired by others, and will be remembered.

Providing the perception that one is of significance beyond physical existence, self-esteem is thus conceived of as a form of symbolic immortality, and thereby assumed to assuage concerns with death. Terror management theory posits that cultural worldview and self-esteem help to manage existential terror. Once an individual is confronted with such terror, the individual will seek out firm establishment of one's self-worth and faith in one's worldview.

In the classic studies of terror management theory, this was investigated by a simple but effective way of manipulating one's mortality concerns. Participants in a study are simply asked to write down their answers to two questions: "Please briefly describe the emotions that the thought of your own death arouse in you."; "Jot down, as specifically as you can, what you think will happen to you as you physically die." Participants in a

control condition complete parallel questions about benign topics (e.g. eating a meal or watching television). A series of studies have demonstrated that mortality salience (MS) effects are not the result of anxiety or negative mood (Mikulincer & Florian, 1997; Rosenblatt, Greenberg, Solomon, Pyszczynski & Lyon, 1989). Further studies demonstrate that MS effects are not caused by self-awareness or physiological arousal. Conditions in which people were asked to think about their next important exam, cultural values, speaking in public, general anxieties, worries after college, meaninglessness, failure, being paralyzed in a car crash, being socially excluded, and dental pain or physical pain, or making them self-aware, do not produce the same effects engendered by the MS induction (Solomon, Greenberg, Pyszczynski, 2004).

Mortality salience produces significant changes in social facets of behavior. In the review below, the focus is on the gist of the research rather on providing a comprehensive overview (for such overviews, see e.g. Pyszcyznski et al, 2004).

Outgroup derogation. According to terror management theory, different-minded others pose a threat to the validity of one's cultural conceptions. To the extent these conception help to establish a sense of equanimity, the presence of different minded other can be considered particularly aversive for those who are reminded about death. Greenberg et al.(1990, Study 1) found that mortality salience engenders anti-Semitism among Christian subjects. Real threat, caused by a terrorist attack, was found to show such effects as well. Echebarria-Echabe, & Fernández-Guede (2006), found that anti-Arab and anti-Semite prejudices increased after the 11/3 terrorist attack against the Madrid railways. In addition, Ochsman and Mathy (1994) found in two studies that German university students' attitudes and behavioural response to foreign students were affected by thoughts of death. Mortality salience led subjects to report less favourable general attitudes towards foreigners, and in a second study to sit closer to a German student and further away from someone covered in a Burqa after mortality salience.

Stereotyping. From the perspective of TMT, stereotypic thinking about those who are different results from the categories provided by one's cultural worldview. Given the death-denying function of cultural worldviews, mortality salience is expected to increase stereotyping. In a study by Schimel et al. (1999), MS indeed increased the tendency to exhibit greater levels of stereotyping of Germans on such traits as 'stubborn', 'organized', or 'cold' relative to a control condition. In a further study, when reminded of their mortality, participants showed increased liking of an unadjusted but stereotype-consistent and decreased liking for a well-adapted but stereotype-inconsistent Black target person.

Aggression. A 'classical' terror management study has shown that mortality salience might lead to aggressive behavior. In an experiment by McGregor et al. (1998) a series of possible aggressive reactions against worldview threatening others were tested. Participants who were given the possibility to allocate an amount of hot sauce that a

worldview-threatening target had to consume, were allocating greater amounts of this hot sauce after MS than control participants, even if they knew the target did not like hot sauce.

Relevant for the military context are findings by Pyszczynski et al. (2006) who studied the effects of mortality salience on Iranian students' support for martyrdom attacks, and likewise young Americans support for extreme military interventions. Support for martyrdom attacks among Iranian students increased, as expected, after mortality salience. Likewise support for extreme military interventions among young Americans increased after mortality salience, but only if they had a conservative political orientation and not among liberals. These findings demonstrate that thoughts of death increases people's readiness to support extreme violent solutions to global conflicts.

Death in real life

This dissertation uses several ideas derived from terror management theory to highlight issues relating to the role of threat in contemporary peace missions. Before doing so, however, it needs to be demonstrated that these experimental findings regarding the effects of mortality salience have real-world relevance. Converging effects of mortality salience research and of exposure to life threatening circumstances like fire fights, the threat of Improvised Explosive Devices (IED) and possibly warnings of possible mortal attacks or at least presence in a mission area where such events are likely to happen, are a prerequisite for studying the validity and value of terror management theory for the military.

Studies in which gory automobile accident footage (Nelson, Moore, Olivetti, & Scott, 1997) and proximity to a graveyard funeral home (Pyszczynski, Wicklund, Floresku, Gauch, Koch, Solomon & Greenberg, 1996) are used show converging MS effects. Besides, Solomon et al. (1989) found in a study on combat stress reaction a strong correlation between death of either comrades as well enemies and anxiety reaction, leading them to conclude: "It seems that the sight of death, no matter whose, forces into awareness the inevitability of the viewer's own death and his ultimate helplessness to avert or reverse it."

Studies on the impact of 9/11 show convergence with mortality salience effects (Pyszczynski, Solomon, Greenberg, 2002; Olivas-Luján, Harzing, & McCoy, 2004; Bligh, Kohles, & Meindl, 2004). These effects include greater concerns for security, but also greater patriotism and nationalistic sentiment, more need for heroes, and for charismatic leadership. Several studies have demonstrated these effects in other countries around the globe as well. A study among Finnish students revealed that these students reported higher security values the day after 9/11 than before the attack on the World Trade Center (Verkasalo, Goodwin, & Bezmenova, 2006).

Other terrorist attacks causing mass victims yielded similar patterns of altered attitudes. The effects of the 11/3 attack on the Madrid train system revealed a change of attitudes and ideological orientation (Echebarria-Echabe, & Fernández-Guede, 2006). They found that participants showed increasing Anti-Arab and Anti-Jew prejudice, authoritarianism, and adherence to conservative values.

Terror in the Military

The notion of converging findings of mortality salience research and real life threat research makes insights derived from terror management theory of relevance for understanding the psychology of peace missions. The key question of this dissertation is: **How does real threat, as experienced by soldiers during peace missions, affect soldiers' mission related attitudes?** Important aspects of these attitudes are collaboration with military and non-military others, acceptance of the risk of dying during deployment and soldiers' motivation for the mission, their task-orientation measured by their self-evaluation of operational readiness.

So far studies on the effect of threat on soldiers' attitudes have been conducted using the classic mortality salience manipulation. Thoughts of mortality were induced by asking soldiers to think of their own death. In these studies, the influence of MS on soldiers' cultural worldview related attitudes were assessed. Taubman-Ben-Ari & Findler (2006) found that the willingness to enlist among high self-esteem army conscripts of the Israeli Defense Force increases for army conscripts who were exposed to mortality salience.

The present research studies terror management processes in *Extremis* settings, or 'at point of death'. Kolditz notes (2006, p. 656) in a description of a study on leadership in Extremis settings: "consider the experiences and circumstances of the soldiers and marines that we interviewed in our study. Interviews were conducted in the active combat zone with infantry soldiers who were fully armed and prepared to engage the enemy without notice. Owing to the rapid advance to Baghdad and beyond, no one in the sample had eaten hot food, showered, or received mail in the thirty days prior. Each soldier or marine interviewed had at least one member of his organization wounded or killed in the preceding thirty days – several uniforms still bore bloodstains left by the evacuation of comrades – dark blotches over the chalk-white salt from daily in 112 degree heat. Each soldier and marine had spent time contemplating the likelihood of his own death."

Research in in *Extremis* setting is obviously hard to realize and may be less than optimal when it comes to scientific control. However, studies in these circumstances provide unique insight in soldiers' perception of threat and its effects on their attitudes and belief. As laboratory research shows that threat has an impact on a variety of attitudes, beliefs and behaviors, it is important to capture the influence of threat on some

relevant aspects of soldiers' cultural worldview or perception of their professional work setting.

One of the critical questions that can be asked is whether cultural worldview related values hamper or facilitate the military objectives in current peacekeeping missions (Niesta, Fritsche, & Jonas, 2008). As noted earlier, politics and society have a different way of framing acceptable risks than the individual soldier. Moreover, descriptions of the military worldview, sometimes described as 'Warrior-ethos' (US), 'Soldiering' (UK), or 'Duty with Honour' (Canada) may not necessarily coincide with the individual's perception and values. The increased emphasis on legal regulation, international collaboration, and involvement in hearts and minds operations can be at odds with individual insight and experience.

Pertinent questions to be asked are therefore: How is threat perceived on the level of the individual soldier involved in peace missions? How does threat during peace missions affect motivation? How does this threat affect willingness to collaborate internationally? And, how does threat affect evaluation of the local population?

This dissertation deals with these questions. All but one study in this dissertation have been conducted among soldiers who were at the time deployed to either Afghanistan or Iraq where these troops were directly confronted with threat. Indeed, both missions have resulted in the loss of lives of fellow soldiers. Moreover, to study the *in vivo* effects of threat as perceived by soldiers, I find it especially valuable to do so without any possible manipulation of soldiers' awareness of mortality. The precise circumstances in place and time of threat can not be controlled in in vivo studies for soldiers who need a place and time to fill out the administered surveys. Therefore it is on the one hand likely that soldiers who have the time to fill out the questionnaires being used in this study were relatively at ease, while at the other hand they were in the deployment area with its possibly invasive threat.

I have tried to capture soldiers' own perception of threat, their awareness of the risk of dying as a soldier and possible changes in the accessibility of death related thoughts or fear of death to study the effects of threat. To examine the effect of threat on soldiers, two quasi experimental designs were chosen to capture the differences between circumstances with and without threat. One study compares soldier who are deployed with soldiers with a comparable background who are at the time of the study at the barracks, and in the other, set-up soldiers' mission related attitudes are compared both pre and during deployment. A third setting was used in one study that focused on cross-cultural differences of soldiers' mission related attitudes and was set up as a more classical terror management study with the in class-room inducement of mortality salience.

The Netherlands Armed Forces have recently or are still deployed in mission areas as Bosnia and Herzegovina (currently considered as low risk), Kosovo (low to high risk), Iraq (medium to high risk), and Afghanistan (medium to high risk). This list is not

exclusive, but these missions are among the biggest recent missions and consist therefore of larger numbers of soldiers. For this research studies were conducted during 3 different missions and one study was carried out among Dutch and Turkish officers who were not deployed at the time. In all three studies with soldiers being deployed threat was real.

The studies I will present here were conducted with, respectively, 1) Dutch soldiers during deployment with the Stabilization Force in Iraq (SFIR) versus soldiers at the barracks in the Netherlands at the time in 2003-2004; 2) Dutch and Turkish officers at either the Dutch or Turkish Defence Academy (officer cadets) of Defence College (Educational program for mid-career officers) in 2004; 3) Dutch soldiers working either at the staff of the 1 German-Netherlands Army Corps international headquarters in Germany or as part of the International Security Assistance Force to Afghanistan (ISAF) in 2003; 4) Soldiers of the International Stabilization Force in Afghanistan (ISAF) as members of Task Force Uruzgan (TFU) in 2006 both before and during deployment to Uruzgan.

Study 1 addresses differences in the awareness of threat, mission related attitudes, and soldiers willingness to fight as a result of threat. Studies 2 and 3 mainly focus on the effect of death threat on the willingness for international military collaboration.

Study 4 concentrates on soldiers' thoughts about the local population while being under threat. The empirical body of this dissertation is depicted in Table 1.

Table 1: Outline of thesis Soldiers under Threat.

General discussion and conclusions			
Primary research question: How does real threat, as experienced by soldiers during deployment, affect soldiers' mission related attitudes.			
threat vs non-threat	Cross-cultural	threat vs non-threat	
Chapter 2: International Collaboration under Threat: A Field Study in Kabul	**Chapter 3:** Accepting death in the military: A Turkish-Dutch comparison	**Chapter 4:** Self-Perceptions of Soldiers under Threat: A field study of the influence of death threat on soldiers	**Chapter 5:** The Uphill "Hearts and Minds" Battle: The Role of Perceived Threat and Idealistic Motivation in Perception of a Local Population during a Peace Mission
Research Question: Does perceived threat affect soldiers' willingness for international collaboration?	Research question: Do Turkish and Dutch officers differ in their acceptance of the risk of dying and additionally does this affect their willingness for international collaboration?	Research question: What is the impact of threat on soldiers' acceptance of the risk of dying, their performance, motivation, and identification?	Research question: What the role of threat and idealistic motivation in the increased negativity of evaluation of the local population?
Research Method: Quantitative measures, survey Threat: N=313 Non-threat: N=67 MANOVA / linear regression analyses	Research Method: Quantitative measures, survey Turkish: N=339 Dutch: N=187 MANOVA / linear regression analyses	Research Method: Quantitative measures, survey Threat: N=264 Non-threat: N=115 MANOVA / linear regression analyses	Research Method: Quantitative measures, survey Threat: N=701 Non-threat: N=675 Matched sample: N=358 MANOVA / linear regression analyses
General introduction			

Self-Perceptions of Soldiers under Threat

A field study of the influence of death threat on soldiers

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Abstract

In studies of soldiers' fears and behavior during war it has been generally acknowledged that their paramount concern is not fear of death, but the fate of their comrades and subordinates. This study aims to delve deeper into this issue. This study deals with the impact of actual death threat on self-perceptions of soldiers with regard to the acceptance of the risk of dying, their performance, and their motivation to engage in a mission. The results indicate that actual death threat has a significant effect on accessibility of death-related thoughts as well as on the self-perception of the soldiers' performance, motivation and identification with the armed forces. This study, conducted among soldiers who were deployed with the Dutch Stabilization Force in Iraq in late 2004, supports the Terror Management Theory that has been used as its framework.

Introduction

Recent missions like the operations in Iraq clearly reveal the life threatening risks of the military profession. In the period 2003-2008 over 4,494 soldiers of the nations involved in Iraq lost their lives[2]. It is, therefore, hard to imagine that soldiers deployed in missions like the one in Iraq are not aware of the risk of dying and, consequently, their own mortality. In relation to the "normal, everyday death anxiety" of the battle-field, "it is almost impossible to deny or ignore the threat. While it is the perception of threat which creates stress, in combat, the gap is slim between the reality of the threat and its perception (Noy, 1991, p. 511)."

As fear of death seems a logical reaction during military operations, studies into fear do not report such feelings as the soldiers' biggest concern. Moreover, at the end of WWII, most commentators agreed that for combatants the fear of being killed came far behind the fear of being thought a coward (Dollard, 1944). More recently, similar results were found in studies involving Israeli soldiers. Here, it was found that Israeli troops with combat experience who were influenced by threat were more concerned with not letting down their comrades or subordinates than with fear of death, whereas these results were opposite for troops without combat experience. Similar results were found for Swedish UN forces with or without experience of being deployed in a war- affected zone (Shalit, 1988).

These reactions are clearly related to real life threat or at least the perception of such threat. Some authors suggest that the risk of losing one's life during a military mission belongs to the general picture of the military profession (Kümmel and Leonard, 2004), but for soldiers there seems to be a clear difference between serving in the military under peacetime conditions and deployment in military operations. Hence, threat, danger and fear have been the focus of attention of military psychology in many studies (Dollard, 1944; Noy, 1991). The aim of these studies was mainly to predict psychological reactions like stress, cohesion or morale (Grinker and Spiegel, 1945; Manning, 1991; Noy, 1991). Resilience against the adverse effects of stress for soldiers under threat has been the focus of studies on differences in soldiers' personalities. In recent military lite-rature personality hardiness has been identified as one of the most important qualities to explain how individual differences moderate the way threat is interpreted (Florian, Mikulincer & Taubmam, 1995; Bartone, Johnsen, Eid, Brun & Laberg, 2002; Bartone, 2006).

As we focus on aspects of soldiers' reactions to threat rather than on moderating dif-ferences in soldiers' personality characteristics, our aim in this article is to decipher the

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influence of threat on soldiers' self-perceptions of their mission related attitudes. Data from Dutch soldiers deployed to Iraq were used to this end.

Terror management and soldiers under threat

This study is based on the insights of Terror management Theory (TMT) (Solomon et al., 1991; Greenberg et al., 1997; Pyszczynski et al., 1999; Niesta et al., 2008). This theory states that the awareness of one's mortality has a significant effect on one's attitudes and appreciation of values derived from one's cultural worldview. For soldiers this cultural worldview is expected to be based on expectations as to the acceptance of the risk of dying, mission readiness, support for the mission goals and cohesion through identification with the armed forces and possible allies.

According to the theory, humans, like other animals, have a strong desire for self-preservation. Yet, unlike other animals, humans possess a cognitive system of sufficient complexity to enable awareness of their own mortality. The juxtaposition of the instinctive striving for life, on the one hand, and the awareness of death, on the other, has been posited to culminate in a state of potentially paralyzing terror, if not managed by cultural worldviews and self-esteem.

Terror management theory states that cultural worldviews provide the individual with a sense of order, stability, and meaning. Moreover, they furnish a sense of what is valued, so as to define for the individual what to do in order to be appreciated, admired, and most importantly, remembered by others who share the worldview. Within this context, self-esteem is defined as the extent to which the individual feels of value, and, hence, constitutes an indicator of the extent to which he is admired and will be remembered by others. In this sense, by providing the perception that one is of significance beyond physical existence, self-esteem is conceived of as a form of symbolic immortality, and is thereby assumed to assuage the uniquely human existential dilemma of knowing that one will eventually die. This dilemma has also been acknowledged for soldiers on the battlefield (Noy, 1991). Hence, terror management theory posits that cultural worldviews and self-esteem help to manage existential terror. Once an individual is confronted with such terror, he or she will seek firm establishment of his self-worth and faith in his worldview.

Moreover, TMT predicts that people tend to suppress thoughts about their mortality once they are confronted with death threat and that self-esteem facilitates the suppression of death-related thought. In this reasoning the opposite effect, elevated *accessibility of death-related thought*, was found for people who were denied the chance to engage in worldview defense, that is expressing one's judgment about others who showed to disagree with respondents views of the world (Greenberg et al., 1994; Arndt et al, 1997a). Furthermore, supportive research of terror management theory's effects of threat show

remarkable results in different social phenomena. People who have an orientation towards a dangerous life-style for example, may even enhance such behavior when confronted with the awareness of their mortality. This behavior, then, is the result of striving for firm establishment of faith in one's worldview as is predicted by the theory. This was precisely the outcome of a study among Israeli soldiers who valued their driving ability as a source of self-esteem and increased risky driving behavior (both self-reports and on a driving simulator) after mortality salience, i.e. awareness of one's death caused by inducing thought about it (Taubman –Ben– Ari, Florian, and Mikuliner, 1999). Moreover, Israeli soldiers' willingness for military service, with a real possibility of deployment in armed conflict, increased among soldiers with high self-esteem after such a mortality salience manipulation (Taubman-Ben-Ari & Findler, 2006). Other remarkable effects of awareness of one's death are e.g. enhanced optimism about the success of a national soccer team as a form of cultural worldview defense (Dechesne, Greenberg, Arndt, & Schimmel, 2000).

It may be expected that soldiers in a mission under life threatening circumstances will be affected in a similar way by their awareness of this danger. This question was addressed in a study on the German-Netherlands Corps during the ISAF mission in Kabul. In accordance with TMT, it was shown that under the life threatening circumstances in Afghanistan a higher acceptance of the risk of dying, a higher identification with the Royal Netherlands Army and a more elevated self-esteem, had a positive effect on the willingness for international military collaboration, whereas fear of death had a negative impact (Dechesne et al., 2007). In a subsequent study on the effect of the acceptance of the risk of dying, in which Turkish and Dutch officers were compared, higher acceptance of this risk, and lower fear of death resulted, likewise, in higher willingness for international collaboration (Soeters et al., 2007).

In this study we aim to show the impact of threat on thoughts and attitudes relevant for soldiers' performance under threat. We argue that the ideas stated below reflect such relevant aspects of soldiers' behavior and illustrate the basic premises of terror management theory. The ideas derived from TMT predict that awareness of the risk of dying as a soldier during deployment has a strong influence on his/her perceptions of his/her performance under threat. If this study shows the effect of threat on soldiers' self-perceptions, it will support both the validity and the relevance of terror management in understanding soldiers' behavior in 'In extremis' circumstances (Kolditz & Brazil, 2005). It consequentially may even contribute to understanding how TMT effects play a role in the development of peace processes in general (Niesta et al., 2008).

Method

Participants

The present study consists of a survey among Dutch soldiers who served in Iraq between April and November 2004 with the SFIR3 or the SFIR4 contingent (N(SFIR3)=62, N(SFIR4)=202, N(total SFIR sample)=264) respectively, which we defined as the threat condition, and a control group in garrison in the Netherlands (N=115), which we defined as the non-threat condition. The overall threat of deadly encounters, such as the impact of 2 casualties among Dutch troops in Iraq during the time of this study, produced the circumstances under which the effect of threat on soldiers could be studied during their mission. In contrast, the control group in garrison obviously was not exposed to threat.

Procedures

All participants received a set of questionnaires and were asked to fill out the questionnaires in order of presentation. The participants first read a general introduction stating that the questionnaire was about military identity while being deployed, and that the questions pertained to personality factors and emotions that are of relevance during peacekeeping. They were further encouraged to answer the questions, using their first, gut-level response and it was explained that all data would be treated anonymously.

Measures

After the introduction, several general questions followed concerning the participant's gender, age, rank, years of service, education, family status, possible offspring and experience in foreign environment. Subsequently, questions were posed pertaining to the self-perceptions of the soldier's thoughts and attitudes operationalized in five categories.

1) Defining <u>concerns about death</u>, TMT predicts that people tend to suppress thoughts about their mortality once they are confronted with death threat; in addition, TMT predicts that self-esteem facilitates the suppression of death-related thought. Therefore *accessibility of death-related thoughts* was measured with a word-fragment completion task (modified from Greenberg et al., 1994) as to measure the accessibility of such thoughts through association rather than posing direct questions about their death concerns. In this task participants were asked to complete 20 word fragments. The number of words that were formed with a death-related meaning is considered a measure for the *accessibility of death-related thoughts*. A typical example from the original test is the fragment COF which can be completed as COFFIN (death-related) of COFFEE (neutral). Dutch examples are i.e. GRA which can be completed as GRAF, meaning grave, or as GRATIS, which means for free and is a rather popular concept among the Dutch.

Another example was D_O_, which could be completed as DOOD (death) or words like DOOS (box), DOOF (deaf) etc. In order to control for effects of differences in associations due to the mission or other influences, the word-fragment completion task was also designed in a way that words with a sex or violence-related meaning could be formed. The results with respect to these measures will be reported too.

In addition, we have used measures of *acceptance of the risk of dying* and *fear of death*, as we have done in other studies (Dechesne et al., 2007; Soeters et al., 2007). The *acceptance of the risk of dying* was measured by 4 statements, through which participants were asked to indicate their endorsement of the items on a 9-point scale. Three items were used to capture *acceptance of the risk of dying* during a mission: "I find it acceptable to die as a soldier during a mission", "I accept the fact that soldiers die during a mission", and "Dying is part of military missions" (*k*=3; non-threat and threat sample: α=.83 and .83 respectively). 'Fear of death' was captured by one statement: "I am afraid of death".

2) We have measured self-perceptions about performance by measuring *self-assessment of operational readiness*, and *self-efficacy*. These two measures, which express soldiers' confidence in their performance, are related to self-esteem as they express soldiers' feeling of meeting the expectations one may have of soldiers. *Self-assessment of operational readiness* is closer related to soldiers' estimated readiness as a unit and trust in one's comrades and can be seen as a form of collective efficacy. *Self-assessment of operational readiness* was captured by three items stating, "My unit is ready to fight whenever necessary", "My unit is ready to deploy when necessary" and "I think that my team members in my unit will perform well in crisis-situations" (*k*=3; α=.88 and .87). *Self-efficacy* was measured by the self-efficacy scale (modified from Jones, 1986) to measure dispositional self-efficacy (*k*=5; α= .68 and .63 in this study). Typical items are, "Based on my experiences, I am confident that I will be able to successfully perform my current job."

3) We defined <u>motivation</u> for the mission through *compliance with the mission*, i.e. personal ideals for commitment to the mission and *internal motivation*. We argue that such motivations are related to one's cultural worldview and that threat might influence defense of such motivations. *Compliance with the mission* was captured by statements such as "I support the mission goals of SFIR", "I support the Dutch policy to support the SFIR mission in Iraq" and "I find that SFIR is doing a good job" (*k*=3; α =.84 and .87). *Internal motivation* was captured by the following 6 items: "I take part in SFIR, because I want to contribute to peace and security", "I take part in SFIR to fight terrorism", "I take part in SFIR in order to support the reconstruction of society in Iraq", "I take part in SFIR for my personal ideals", "I take part in SFIR for adventure and the challenge", "I take part in SFIR to help people in need" (*k*=6; α=.88 and .87).

4) We defined soldiers' <u>identifications</u> with other soldiers, either from their own national background, in this case the Royal Netherlands Army, or from other coalition

forces. Identification with the in-group was defined as *identification with the Royal Netherlands Army*. And, as soldiers in peacekeeping operations are often combined with soldiers of other nations, identification with other-than-Dutch-soldiers was defined through *willingness for international collaboration*. *Identification with the Royal Netherlands Army* was measured by means of adapted versions of identifications scales developed by Ellemers et al. (1988). Participants were asked to indicate their endorsement with the following statements "I find it important to be a part of ...", "I am proud to be a part of...", "I would like to continue to be a part of ...", and "I have a lot in common with other members of ...". These questions were asked with respect to the Royal Netherlands Army (k=4; α=.79 and .84). Similar questions were also asked with regard to the *willingness for international collaboration*. For this index, three items were used. These are "I think that it is important to serve as a soldier in an international setting / operation", "I am proud to serve in an international context", and "I would like to work again in an international setting". The general index of the 'willingness to collaborate internationally' was satisfactory (k=3; α=.82 and .83).

5) In addition, the *personal need for structure* scale (Neuberg and Newsom, 1993) was used (k=12; α=.71 and .78). This scale expresses soldiers' adaptability to situations that differ from their initially held assumptions or beliefs. The *personal need for structure* scale measures differences in the desire for simple structure that may have significant implications for how people go about approaching and understanding their world, and this might change under threat. Some typical items are "It upsets me to go into a situation without knowing what I can expect from it" or "I hate to be with people who are unpredictable".

Finally, in the sample of the soldiers who took part in the SFIR4 mission some additional questions were asked about the perceived real risk in the mission. *Real risk* was captured by items such as "During the mission of SFIR4 I was at risk getting involved in real life-threatening situations", "During SFIR4 there have been truly life-threatening situations", "During this mission I have witnessed attacks or situations in which I was exposed to real life-threatening situations", "I have witnessed situations in which other military were exposed to real life-threatening risk" (k=4; α=.78).

Results

The means, standard deviations and correlations between the measures of 1) <u>concerns about death</u>, 2) <u>self-perceptions of performance</u>, 3) <u>motivations</u>, 4) <u>identifications</u>, and 5) <u>personal need for structure</u> are shown in table 1, differentiating between the non-threat and the threat condition.

Table 1: Comparison of the means in non-threat versus the threat condition and correlation of concerns and self-assessment of performance, motivations, and identifications under non-threat and threat.

	M	SD	1	2	3	4	5	6	7	8	9
Non-threat (N=115)											
1 Fear of death	3.99	2.38	-	-.67	-.07	-.24	-.12	-.00	.01	.04	.02*
2 Acceptance risk of dying	6.34	1.79		-	.09	.12	.40**	.26**	.08	.17	-.06
3 Self-efficacy	6.53	1.32			-	.25**	.29**	.19*	.21**	.31**	.03
4 Self-assessment of operational readiness#	6.31	1.68				-	.40**	.40**	.44**	.38**	.00
5 Compliance with the mission#	6.75	1.68					-	.80**	.43**	.50**	-.06
6 Internal motivation#	6.74	1.55						-	.50**	.65**	-.03
7 Identification RNLA	5.90	1.61							-	.74**	-.01
8 International collaboration	6.37	1.74								-	-.05
9 Personal need for structure#	5.00	0.96									-
Threat (N=264)											
1 Fear of death	3.63	2.40	-	-.14*	-.03	-.04	-.08	.03	.06	-.05	.24**
2 Acceptance risk of dying	6.06	2.10		-	.08	.24**	.25**	.27**	.22**	.26**	-.30***
3 Self-efficacy	6.72	1.25			-	.39**	.22**	.20**	.25**	.25**	.20**
4 Self-assessment of operational readiness#	7.57	1.53				-	.37**	.34**	.37**	.21**	-.16*
5 Compliance with the mission#	6.28	1.90					-	.48**	.47**	.49**	-.19***
6 Internal motivation#	5.97	1.84						-	.44**	.40**	-.06
7 Identification RNLA	6.10	1.79							-	.60**	-.09
8 International collaboration	6.38	1.82								-	-.21**
9 Personal need for structure#	4.61	1.13									-

#Significant difference of means between the non-threat and the threat condition at $p<.05$;

*= $p<.05$ level (2-tailed) **= $p<.01$ level (2-tailed).

The table, firstly, displays clearly more significant correlations between the measures in the threat than in the non-threat-situation. Under threat, *acceptance of the risk of dying* and *personal need for structure* reveal significant correlations with most measures, in contrast to the non-threat-situation. So the way soldiers understand their world as expressed by their personal need for structure and their acceptance of the risk of dying do matter under threat more than in a situation where they are not directly confronted with threat.

The means and standard deviations of the measured variables in both the threat and non-threat situation demonstrate that in the threat condition soldiers display a significantly and substantially higher *self-assessment of operational readiness* ($F_{(1, 371)}=50.26$, $p <.05$), but a lower compliance with the mission ($F_{(1,367)}=5.24$, $p<.05$), a lower internal motivation ($F_{(1,360)}=13.15$, $p<.05$) as well as a lower personal need for structure $F_{(1,374)}= 10.57$, $p<.05$). The first difference is clearly in line with TMT, since this theory states that once confronted with existential terror one will seek out firm establishment of one's self-worth. Compliance with the mission and internal motivation, however, are significantly lower in the threat than in the non-threat situation. This indicates that soldiers have lower faith in their mission under threat, where the theory would expect firm establishment of faith in one's worldview. This could possibly imply that the motivations measured by compliance to the mission and internal motivation do not express the core values of soldiers' worldview. Finally, the scores on the personal need for structure scale indicate that soldiers, once under threat show a more flexible approach towards the way they approach and understand their world. So under threat these soldiers seem to adapt themselves to the reality of the threat situation as they show a less rigid approach and understanding of their world as indicated by a lower personal need for structure.

Although *acceptance of the risk of dying* and *fear of death* show no significant differences between the non-threat and the threat condition (table 1), the *accessibility of death-related thoughts* is significantly lower in the threat condition. The test for *accessibility of death-related thoughts,* as described before, shows that soldiers in the threat-condition complete fewer word-fragments with death-related meanings (rank order score 182) than soldiers in the non-threat situation (rank order score 208). This difference tested with Mann-Whitney is significant ($U= 13059$; $p<.025$). According to TMT the suppression of death-related thoughts is facilitated by high self-esteem. As we have just seen, *self-perception of operational readiness* shows a significant and substantially higher level under threat. This indicates that soldiers' psychological defense against death threat indeed is activated under threat and that soldiers try to manage the effect of mortality salience in vivo. In contrast, the analyses of differences in sex or violence-related word-fragment completion showed no significant differences between the threat and the non-threat condition. So the threat situation only seems to affect the *accessibility*

of death-related thoughts, which under 'in vivo' conditions confirms Greenberg et al.'s (1994) work on the accessibility of such thoughts.

As we study the influence of threat on soldiers' self-perceptions, we were also interested in the impact of *fear of death, acceptance of the risk of dying, self-efficacy, self-assessment of operational readiness,* and soldiers' *personal need for structure* on their motivations and identifications. Stepwise linear regression analyses with *compliance with the mission* and *internal motivation* as dependent variables show relations with soldiers' *concerns about death,* their *self-assessment of performance* and their *personal need for structure. Compliance with the mission* shows a positive relation with the *acceptance of the risk of dying* and higher *self-assessment of operational readiness* in the non-threat (β respectively .40 and .35; R^2=.32) as well as in the treat situation (β respectively .13 and .32; R^2=.19). In addition to that, *personal need for structure* shows negative relation with *compliance with the mission in the threat situation* (β= -.15). *Internal motivation* shows in both the non-threat as well as the threat situation a positive relation with *acceptance of the risk of dying* and a high *self-assessment of operational readiness* (β respectively .26 and .37 and .17 and . 31; R^2=.23 and R^2=.15).

Stepwise linear regression analyses with *identification with the Royal Netherlands Army* and *willingness for international collaboration* as dependent variables demonstrate relations with soldiers' *concerns about death* and their *self-assessment of performance. Identification with the Royal Netherlands Army* in the non-threat situation shows a strong relation with *self-assessment of operational readiness* (β=.47; R^2=.22). In the threat situation higher *identification with the Royal Netherlands Army* shows a positive relation with higher *acceptance of the risk of dying* (β=.14), higher *self-efficacy* (β=.15) and again higher *self-assessment of operational readiness* (β=.24; R^2=.17). The *willingness for international collaboration* reveals some final interesting relations. Higher *acceptance of the risk of dying,* higher *self-efficacy* and higher *self-assessment of operational readiness* are related to higher *willingness for international collaboration* in the non-threat situation (respective β: .19; .33 and .22; R^2=.27). In the threat situation a high *willingness for international collaboration* is found for soldiers with a higher *acceptance of the risk of dying,* a higher *self-efficacy* (β: .18 and .19; R^2=.13), but with lower *personal need for structure* (β: -.15). These findings are in accordance with our other studies on this issue (Dechesne et al., 2007; Soeters et al., 2007).

As it is likely that soldiers have not all encountered the same hostilities and have not undergone equal levels of threat, we wanted to study the effect of the extent of threat soldiers experienced. To that end we have asked additional questions concerning the extent of perceived real risk among the sample of the soldiers deployed with SFIR4 in Iraq (*N*=202). The amount of perceived real risk ranges from 2.5 to 9 on the used nine-point scale with an overall mean score of 6.59 and a standard deviation of 1.90 in this sample. The risk of dying is therefore real in the eyes of the troops deployed in this mission.

The amount of perceived real risk, can be broken down into three equal size groups, low (≤5.5), medium (>5.5 and <8.0) and high (≥8.0) perceived real risk, on the used 9-point scale. The averages for the concerns, self-perceptions, motivations and identifications at the different levels of perceived real risk are displayed in table 2.

Table 2: MANOVA analyses: Means and standard deviations (N=202).

	Low real risk		Medium real risk		High real risk		η^2
	M	*SD*	*M*	*SD*	*M*	*SD*	
Fear of death	3.20(L)	1.95	3.87	2.35	3.88	2.75	.02
Acceptance of the risk of dying	5.65 (L)	2.09	6.38	1.78	6.67	2.29	.04
Self-efficacy	6.52	1.36	7.04(H)	1.020	6.83(H)	1.10	.03
Self-assessment operational readiness*	6.95(H)	1.50	7.80(H)	1.32	8.44(H)	.87	.20
Compliance with the mission**	5.45(L)	2.04	6.30	1.50	6.71	1.98	.08
Internal motivation**	5.49(L)	1.85	5.94(L)	1.72	6.73	1.64	.08
Identification with the RNLA**	5.60	1.84	6.08	1.65	6.88(H)	1.45	.10
Willingness for international collaboration	6.05	1.86	6.19	1.68	6.87	1.69	.04
Personal need for structure	4.64	1.05	4.60	.99	4.28	1.22	.02

** = $p<$ .006 (Bonferroni adjusted alpha level of .006); *= near significant $p<.012$. Multivariate test: Wilks' Lambda=.674, F=4.43, $p<.001$, η^2=.18. L=significantly lower than same measure in non-threat condition ($p<.05$, ANOVA). H= significantly higher than same measure in non-threat condition ($p<.05$, ANOVA).

In order to control for the effect of real threat on the measures, a one-way between-groups multivariate analysis of variance was performed to investigate differences in *concerns about death, self-perceptions about performance, motivations, identifications,* and *personal need for structure* under different threat conditions. *Accessibility of death-related thoughts,* sex or violence-related thoughts were tested independently, as shown below. The independent variable was the extent of perceived real threat. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicolinearity, with no serious violations noted. There was a statistical significant difference between the various levels of real threat on the combined dependent variables: $F(9, 178)=$ 4.42, $p<$ .001; *Wilks'Lambda*= .67; *partial eta squared*=.18. When the results for the dependent variables were considered separately, statistical significant differences, using a Bonferroni adjusted alpha level of .006, were reached for *self-assessment of operational*

readiness: $F(2, 194)= 23.27$, $p< .001$, *partial eta squared*=.20, *compliance with the mission*: $F(2, 194)= 7.80$, $p< .001$, *partial eta squared*=.08, *internal motivation*: $F(2, 194)=8.62$, $p< .001$, *partial eta squared*=.08 and *identification with Royal Netherlands Army*: $F(2, 194)= 10.04$, $p<0.001$, *partial eta squared* .10. So, some moderate and large effects of threat were found, using commonly used guidelines proposed by Cohen (1988) (.1=small, .6=moderate, .14=large effect).

In these results a clear relation between the extent of *real threat* and the *self-perceptions about performance, motivations* and *identifications* is found. We expected threat to have such influences and indeed it shows that the highest *self-perceptions about performance* are measured under the highest perceived *real threat* circumstances; additionally, those soldiers with high scores on these measures show the highest *motivations* and *identifications*. The other way around, soldiers under threat with lower perceived *real risk* show relatively lower *self-perceptions about performance* as well as a lower *acceptance of the risk of dying, motivations* and *identifications with the Royal Netherlands armed forces*.

The *accessibility of death-related thoughts* in the threat situation does not differ for the level of perceived *real threat* (not reported in table 2). The differences between the low, average and high perceived *real threat* groups are not significant (Kruskal-Wallis-test $\chi^2=1.35$; $df=2$; $p<.51$). Most likely the *accessibility of death-related thoughts* under threat is already so low that with this measure no further differences could be measured. The amount of sex-related thought does not differ either for the three different *real threat* levels (Kruskal-Wallis-test $\chi^2=.28$; $df=2$; $p<.87$). Yet, the amount of violence-related thoughts shows a near significant effect (Kruskal-Wallis-test $\chi^2=4.83$; $df=2$; $p<.09$). Soldiers who reported higher perceived *real threat* show a higher level of violence-related word-fragment completion. Here violent experiences seem to have an effect on the accessibility of violence related thoughts. This seems a logical reaction towards the reported amount of perceived real threat.

Conclusions and Discussion

The purpose of this study was to investigate the effect of actual death threat on military self perceptions. The SFIR mission in Iraq at the time of this study has indeed been described as a high threat mission with actual casualties among the soldiers deployed at the time of our study. This contrasts with the soldiers who were at the time in garrison and functioned as a control group for the non-threat condition.

The influence of threat on soldiers' self-perceptions showed a number of clear results. Under threat the acceptance of risk of dying and the way one approaches and understands one's world show significant relationships with soldiers' concerns about death, self-perceptions of performance, motivations and identifications. Moreover, as we expected that threat has an impact on the *accessibility of death related thoughts*, soldiers

under threat displayed less death-related thoughts in a word-fragment completion task. So, on a subconscious level they seem to deny thoughts about death. According to the theory such denial is associated with worldview defense (Greenberg et al., 1994; Arndt et al, 1997a). Furthermore, *self-assessment of operational readiness* was substantially higher under conditions of threat. This is in line with terror management's expectations that soldiers under threat will seek establishment of their self-worth, *self-assessment of operational readiness*, and that this helps to sustain psychological equilibrium under threat. The lower scores on *motivations* during deployment leads us to suspect that the motivations measured in this study do not necessarily reflect soldiers' inner drive for their performance under threat. However, high *self-assessment of operational readiness* supports *compliance with the mission, internal motivation* and *identification with the Royal Netherlands Army* during deployment. *Willingness for international collaboration* is supported by higher *self-efficacy* expressing feelings of self-worth on a more personal level. This indicates the possible buffering role of higher confidence in one's individual or collective contribution during deployment.

Furthermore, we have seen that higher *acceptance of the risk of dying* is related to higher *compliance with the mission, internal motivation, identification with the Royal Netherlands Army* and the *willingness for international collaboration*. This supports the idea that soldiers who feel valued and acknowledged by relevant others expressed by a higher identification with others, who share one's worldview or at least the same burden of deployment, are more likely to accept the risks of the mission. We argue that higher acceptance of the risks of the mission is related to confidence in one's value in the mission and the soldiers one is deployed with, suggesting that this serves to the establishment of a form of 'symbolic immortality' as expressed by terror management theory. In addition to this, soldiers with a higher adaptability to situations that differ from their initially held assumptions or beliefs, expressed by lower *personal need for structure*, show higher *compliance with the mission* and *willingness for international collaboration*. We expect that the way soldier go about understanding their world is especially important when it comes to motivations for a mission one has not formulated oneself or collaboration with others one does not know.

This is more clearly shown when we examined the impact of low, medium or high *real threat* on soldiers' self-perceptions. While the extent of real threat did not show any differences on soldiers' *concerns about death*, more threat results in higher *self-assessment of operational readiness* and higher *motivations* and *identification with the Royal Netherlands Army*. Combining these results with the findings of the control group (table 2 and 1) shows that the reported motivations at the highest real threat level are similar to the reported motivations among soldiers in garrison. This leads us to assume that especially deployed soldiers, so under general threat, but under low *real experienced threat* and likewise with the lowest increase on *self-assessment of performance* are most at

risk of losing their *motivation*, measured here as *compliance with the mission* and *internal motivation*. As a result we stress once more that a high *self-assessment of performance*, probably related to the possibility to act, is important to keep up one's motivations under threat. Moreover, a higher identification with other members of the Royal Netherlands Army is clearly reported at the highest real threat level and appears to be a pillar in sustaining the willingness to collaborate with other than Dutch soldiers, as measured by the *willingness for international collaboration*.

In our opinion the results of this study show a convincing 'in vivo' example of the impact of terror management theory. In our other studies (Dechesne et al., 2007; Soeters et al., 2007) we reported similar results, which make this case stronger. Criticism for the lack of correspondence with real-life threat (e.g. Muraven and Baumeister, 1997) does not apply to our study as real threat and its effects were unequivocally observed in our research context. But clearly, further studies using different measures related to self-esteem and cultural worldview and the effects of threat on such important aspects as the accessibility of death-related thoughts will be needed to fully understand the effects of real threat on soldiers' performance.

Research into the role of threat within the domain of military psychology is not only relevant for academic purposes but also for commanders who want to understand the human reactions on the battlefield. This is especially important as recent missions show that deployment under real threat is real and asks for research in *In Extremis* settings, as advocated by Kolditz (2006) based on his data that also stem from Iraq. The main conclusion for the military, we believe, is that a high self-assessment of performance and especially of the unit one belongs to is of vital importance to maintain motivation for the mission and suppress the natural terror of the mission. High self-assessment of one's performance we think is a result of good training, success during one's mission and acknowledgement of such success. This is a leader's responsibility.

In this study, we argue that soldiers were able to seek firm establishment of self-worth, since the mission had proved to be rather successful for the Dutch units. In case of less success, this framework may also serve to explain adverse reactions of soldiers and, by consequence, to recommend possible interventions in keeping up feelings of self-worth. Although possibly more difficult, further research into the effects of death threat under less successful circumstances will be necessary to assert the value of terror management theory for soldiers under such circumstances. In particular, investigating the role of threat on morale is of interest, since morale is the "unknown X" that enables soldiers to survive and to continue to conduct their operations later (Manning, 1991).[3] In

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general, our findings lead us to endorse the insight provided by Niesta et al. (2008) that threat (and mortality salience in TMT argot) may not only have negative consequences, but may also produce positive psychological reactions among people that – on the long run, and perhaps fairly indirectly – may even help foster peace processes. If this article has contributed to this idea, it has fulfilled its goals.

Accepting death in the military: a Turkish-Dutch comparison

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Abstract

In this article we examine the acceptance of dying among Turkish and Dutch military cadets and mid-career officers. This is an important issue because the so-called casualty factor seems to play an increasing role in decision-making on whether or not to initiate and continue military actions. It may be argued that the acceptance of casualties in the military varies across national armed forces. The Netherlands are considered to be a highly individualist society whose armed forces are not very well-known for their martial tradition and history. The Turkish society, on the other hand, is more collectivistic and its armed forces are proud of their martial history, tradition and reputation. Survey data collected among cadets and mid-career officers in military academies and staff colleges of the two countries confirm these "images" to a large degree. The two samples display significant and substantial differences in accepting the risk of dying in the expected direction. In addition, we examine the impact of these differences on the willingness and ability to collaborate internationally. The results of these analyses confirm the so-called Terror Management Theory to a large degree. The implications of these results are discussed in the final part of this study.

Introduction

The risk of dying during operations is inherent to the military's job. Nonetheless, concern about military casualties seems to have become stronger in recent years. Even though the debate is still going on (Burk, 1999), the so-called *casualty factor* seems to play a growing role in political decision-making on initiating or continuing military actions (Smith, 2005). Until now, the current operations of the U.S.A. military in Iraq have cost the lives of over 3000 men and women, which is becoming an increasing concern for the U.S. government and military apex. Although this number is limited compared to the over 50,000 American lives that were lost during the Vietnam war in the 1960s and 1970s, it is unlikely to grow substantially without endangering the mission's legitimacy. Casualty for casualty, support for the mission in Iraq has declined far more quickly than it did during either the Korean or the Vietnam War (Mueller, 2005).

As sociologist Bauman (2005) has pointed out, today's Western societies no longer know martyrs or heroes, i.e. people who are willing to die for a larger cause. For martyrs this larger cause is expressing "solidarity with a smaller and weaker group, a group discriminated against, humiliated, ridiculed, hated and persecuted by the majority" (Bauman, 2005: 42). Today's suicide bombers in the streets of so many cities, in Iraq particularly, belong to this group (Akbar, 2002). Heroes are those who are willing to sacrifice their lives to assure the survival of the nation. Clearly, this category applies to the military. Over centuries many military men have lost their lives on the battlefield. However, in Western societies the state-nation has evaporated upwards into the anonymous realm of global forces, evading territorial commitment (Bauman, 2005: 45) and leading to less civic engagement (Putnam, 2000), while the need to enjoy the opportunities of life – hedonism so to speak – has grown with the increment of prosperity. It is known that prosperity comes with individualism, the tendency to primarily look after oneself. This tendency renders the risk of dying as a soldier very unattractive. Of course there are exceptions such as successful American baseball player Pat Tillman who volunteered to be deployed to Iraq and Afghanistan and died during action. Yet, his example is only rarely followed by people with comparable options in life.

At least in Western societies, which is a major concern for recruiters of Western professional armed forces, increasingly deployed to unsafe areas in the world. But what about societies that are not or less Western, less individualistic? Turkey for instance, a country that is situated at the confluence of the major cultural streams of the East and the West (e.g., Wasti, 1998; Kinzer, 2001; Kabasakal & Bodur, 2002; Zürcher, 2004). The Turkish armed forces (TAF) are well-known for their military achievements throughout history. What about the acceptance of death in that military? In this study we will present data collected at military academies and staff colleges in Turkey and the Netherlands, which is a Western society not particularly known for heroes sacrificing

their lives. We have chosen the militaries of these two countries because - given their history - the acceptance of dying in both militaries is expected to diverge quite considerably.

The data in this study relate to concepts that stem from a social-psychological theory called Terror Management Theory (Greenberg, Solomon & Pyszczynski, 1997; Schimel et al., 1999; Pyszczynski, Solomon & Greenberg, 2003). This theory, based on the writings of anthropologist Becker (1973), posits that the awareness of dying – in argot: *mortality salience* - impacts on the way how one thinks about other groups. When people are reminded of their own death, they tend to defend their own cultural world view by showing more positive attitudes towards those who share similar beliefs and thoughts and more negative attitudes towards those who have dissimilar worldviews. In general, it has been demonstrated that awareness of, and concern about, dying leads to stereotypical and prejudicial thinking, the strengthening of one's own world view and the rejection of outgroups. This theory has been confirmed in numerous studies all over the world, including the Netherlands and Turkey (e.g., Dechesne, Greenberg, Arndt and Schimel, 2000; Kőkdemir and Yeniçeri, 2005). In Turkey, for instance, it has been demonstrated that private university students primed with thoughts of death reported more positive evaluations of a text arguing private universities' superiority to state universities, contrary to a control condition in which "death" was replaced by "an important exam". Results pointing at the same mechanism were obtained with state university students derogating private universities when they were confronted with thoughts of death (Kőkdemir and Yeniçeri, 2005).

After 9/11 this mechanism could be observed in *real life conditions* in the U.S.A., when people became more nationalistic, advocated less tolerant attitudes towards minorities and in general displayed lesser degrees of cosmopolitanism (Pyszczynski, Solomon & Greenberg, 2003; see also: Olivas-Lujan, Harzing and McCoy, 2004). This relation has been shown to be influenced by (social) psychological factors such as self-esteem, closure of the mind (uncertainty avoidance), pride, identification with the own group and cultural world views. People who display more self-esteem and less closure of the mind, and who are more proud of the larger collectivities they belong to, are less susceptible to the 'mechanisms' uncovered by the Terror Management Theory. Self-esteem and cultural world view function to protect individuals from the potential terror that is engendered by awareness of the inevitability of death.

In the context of the military it has been demonstrated that soldiers who perceive their deployment conditions to be life-threatening are less willing to engage in international military cooperation than soldiers who do their duty under peacetime conditions (Dechesne, van den Berg & Soeters, 2007). The latter group of soldiers is significantly less reluctant to work together with servicemen of other nations, which is in accordance with the existing theory. This group is more willing to work internationally,

because they are shown to be in lesser need of strengthening one's own worldview by rejecting others. The respondents in that study, however, all belonged to one nation, i.e. the Netherlands. In the current article we want to examine whether or not this result can also be found when comparing the militaries of two nations, i.e. Turkey and the Netherlands.

In summary, in this article we aim to compare the militaries of the two nations with respect to acceptance of death and the impact possible differences may have on soldiers' willingness and ability to cooperate internationally. We pay such explicit attention to the willingness to cooperate internationally because in today's military missions smooth international military cooperation is as much in demand as it is difficult to achieve (Soeters, Poponete & Page, 2006; Soeters, Resteigne, Moelker & Manigart, 2005).

The structure of this article is as follows. First, we will provide some background on both nations and their militaries in particular. Next, we will explain the set-up of the study, including the sample and the operationalization of the concepts used. We will then present the results and draw conclusions on their significance for future missions and international military cooperation in general.

The Turkish and the Dutch armed forces

The Turkish armed forces

The Turkish armed forces are the second largest military in NATO and they have a good reputation in the country. The Turkish population regularly expresses a large degree of confidence in the military. It is a conscript army, and it is not likely to transform into an all volunteer force in the short term. The Turkish armed forces are not only regularly deployed on peacekeeping missions abroad (Bosnia, Kosovo, Afghanistan), but they also have extensive national tasks, in particular protecting the borders and responding to terrorism and uprisings, in particular in South-East Turkey. Moreover, the Turkish military has a long martial tradition from the time of the Ottoman empire (Finkel, 2005) and the military feats of Kemal Atatürk. More recently, in the Korean War, the toughness of the Turkish military meant that none of the Turkish prioners-of-war died, neither did any of them 'talk' or defect to the enemy. This achievement was not equalled by any other allied power (Dora, 1963; Fehrenbach, 1963).

In the last two decades, some 5,000 Turkish military and police personnel were killed in South-East Turkey in operations against Kurdish separatist movements. These casualties (on average 250 per year) have had no discernable effect on the recruitment of regular personnel, the call-up of conscripts or the number of enlisted men volunteering for deployments in the unsafer areas in the country (Varoğlu & Bicakciz, 2005). In general, many Turkish men consider it an honour to serve in the military. Yet, the operations inside national borders can, and indeed are, criticized both internationally

and nationally – by a number of Turkish soldiers themselves (Mater, 2005). However, whatever one's view of the Turkish Army's operations against the Kurdish rebels (e.g., Jongerden, 2006), they bear witness within the institution to a sense of honour, a love of the fatherland and a desire to avoid being 'unmanly' (Kinzer, 2001; Soeters, Tanercan, Varoğlu & Siğri, 2004: 357). The traditional identification of the nation with the army is expressed in the description of the Turks as "a nation that is an army" (ordu-millet) (Mango, 2004).

In the framework used by Bauman (2005), one can argue that the Turkish state-nation still is very prevalent in the Turkish mind, also because the state is still 'contested terrain' in a number of peripheral areas of the country. For that reason it is understandable that in the TAF the concept of heroes is still very much alive, to commemorate those who died for the sake of the country. This happens, for instance, on a hill close to the army's academy in Ankara planted with trees, each tree representing an academy's graduate who died during an operation. On this hill one can see old but very young trees too. In this way, (cadet-)officers at the academy are continuously reminded that death can come at any time during action and that they need to remain 'in control' and behave 'like men' if such tragedy were to happen (Soeters, Tanercan, Varoğlu & Siğri, 2004: 363). This is a special, not very common organizational response – actually preparation - to death in the military (e.g., Bartone & Ender, 1994; Ender, Bartone & Kolditz, 2003). In addition, accidental and untimely death is relatively commonplace in Turkey compared to most western societies; in Turkey deaths from catastrophe (earthquakes), road traffic accidents and insufficient health care facilities are relatively high.

Of course, Turks are not really "used" to death. However, - as famous Turkish author Orhan Pamuk (1983: 68-69) lets his fictional character Selahattin Darwinoğlu ("Darwin's son") say "Turks and oriental people in general have no knowledge nor fear of death", and this renders them more "naive, apathetic and slavish" than Westerners. Of course this is a caricature, but it is not without a trace of reality. An illustration of what Pamuk is trying to say here is that personal courage is highly praised in Turkey, even at the expense of the caution common in the modern world. Two of the worst disasters in the history of Turkish airways have been caused by pilots determined to show their mettle by landing in conditions which would have forced more cautious Western pilots to turn back (Mango, 2004). Even though this observation pointing at a sense of "naivity" may be quite exceptional, one may claim that in Turkish society death in general, and courage-related death in particular, is more pervasive than in most modern, Western societies (see also: Kőkdemir & Yeniçeri, under review; Clark, 1993).

The Netherlands armed forces
The Netherlands is such a modern, Western country, where hardly anyone tells the males to "behave like men", and where its armed forces are not particularly known for

their heroes, or hills commemorating the lives of those lost in action. In general, Dutch society is reported to have an uncomfortable relation with the military and the use of violence as such (Soeters, 2000; Van der Meulen & Soeters, 2005). This does not mean, however, that there is no societal support for the military institution at all, nor that there never were large numbers of casualties. During the so-called police actions in the former Dutch East Indies (now Indonesia) almost 5,000 Dutch soldiers died in the period between 1946 and 1949: slightly more than half of them were killed during action, the others died as a result of accidents and illnesses. Estimates of casualties among the locals in this period vary between 100,000 and 200,000. Looking back, Dutch society and politics feel grief and bitterness about so many lives lost, not only about the own casualties but also the far greater number of casualties that were inflicted on the local population. The reminiscence of those police actions still is an open wound, not in the least for the veterans of those police actions themselves. Like the Turkish armed forces, the Dutch armed forces have also participated in the Korean War leading to a fairly considerable number of casualties. The Dutch, however, were never reported to have acted so bravely and courageously as the Turks.

As the Cold War in Europe became increasingly less threatening and the internal situation in the Netherlands provided no problems whatsoever (unlike Turkey, and the Northern-Irish region for the UK for example), the Dutch military rarely came in action for nearly four decades. Only at the beginning of the 1990s after conscription was abolished, the Dutch armed forces were requested to deploy again, first in Cambodia, Bosnia, Kosovo and the Eritrea/Ethiopia area, later, after 11 September 2001, also in Afghanistan and Iraq. In all these missions it became clear that both politicians and the military themselves are *casualty averse*, not to the extent that risks should be excluded at all costs, but both are certainly very keen on reducing the risk of casualties. Some critics have said – rightfully or not – that Dutch troops in the Srebrenic valley acted too passively to prevent the Serb genocide on Bosnian refugees in 1995 (see: Klep & Winslow, 2000). An occasional – foreign – commentator even suggests that the Dutch military are "too sweet and innocent for war" (Sion, 2006). And some 25 years ago, the American historian Walter Laqueur (1981) coined the depreciatory name "Hollanditis" to indicate the Dutch tendency to maintain a neutral stance during the Cold War. Such comments may be exaggerated, but recent experiences may illustrate why those comments are expressed this way.

During the Iraq deployment (1,500 troops between 2003-2005), three violent incidents occurred, all of them creating considerable upheaval in Dutch society. One NCO of the Royal Dutch Marine Corps allegedly killed an Iraqi person, who had been participating in a looting; subsequently, this serviceman was arrested and prosecuted within days. For half of the nation this was a clear indication that Dutch society and its (legal) institutions have no understanding whatsoever of military affairs. The other half

agreed that any action of the military should be monitored very carefully in order to avoid any sort of derailment that one had witnessed during the police actions fifty years before. Other incidents took place in the summer of 2004, when two Dutch servicemen were killed in two separate ambushes, drawing a lot of attention at the home front. Politicians, commentators, and the public at large showed themselves touched by the soldiers' deaths. Compared to the – roughly - 250 casualties per year the Turkish military suffers during anti-terrorism activities inside the national borders, these two casualties pale into significance, but the societal and political reaction in the Netherlands was nevertheless intense. It revealed the reaction of a society, in which the survival of individual military (wo)men is deemed very precious, at least more – so it seems - than in collectivitistic cultures such as in Turkey.

For our study, the foregoing implies that we expect the Turkish military to display more acceptance of getting killed or wounded and to be more proud of their country and institution than the Dutch. Since, as we previously indicated, lesser acceptance of, and concern about, the possibility of dying are factors leading to lesser openness and, hence, lesser willingness to cooperate internationally, we expect the Turks to be more inclined to engage in international military collaboration.

Research design, measurements and analysis

In 2004 we conducted a number of studies based on Terror Management Theory, administering questionnaires to troops in Kabul, Iraq and at home (e.g., Dechesne et al., 2007). In this connection, we conducted the current study among Turkish and Dutch officer-cadets and mid-career officers (captain/major) at the military academies and staff colleges in both countries (respectively in Breda and the Hague, and in Ankara). These research groups are highly representative of the total populations, as all (future) officers in both nations can enter the military or pursue their military career only through the academies and staff colleges.

Following the approach and the concepts we had developed in the previous studies we designed the questionnaire in the Dutch language. Subsequently, we had this questionnaire translated into the Turkish language by a bi-lingual Turkish-Dutch translator. We then sent the Turkish questionnaire to the third author who was responsible for the data collection in Ankara. He had the questionnaire backtranslated from Turkish into English, which enabled the first and the second author to check the first translation. This led to a number of changes in the final Turkish questionnaire. In both countries the questionnaires were administered to complete classes; except for the people who had reported sick or absent for class, all students and course members filled out the questionnaire, which happened in the course of the year 2004. Table 1 shows the number of respondents. Because the Turkish academy and staff college are much larger, the Dutch

respondents are outnumbered by the Turkish respondents. The Turkish respondents all belong to the army, whereas the Dutch subsample also contains a number of respondents from the air force, the navy and the military police [126 out of 176 respondents (=72%) are army personnel]. It will show (table 2) that there are hardly any differences between the subsample of all Dutch respondents and the subsample of Dutch *army* respondents only. The number of women officers in both national subsamples is very low: 19 in the Dutch research group (10.2%) and 5 in the Turkish research group (1.5%). Given these low numbers, we have decided not to pay specific attention to gender differences. Ethnicity has not been measured, because it is not considered to be of importance, in particular not in the TAF. In the Netherlands armed forces, the number of ethnic minorities, especially among (future) officers, is still very low, actually close to zero. The age requirements to enter the academies and staff colleges are the same in both nations. All in all, the national samples are almost completely homogeneous with respect to the most important demographic characteristics.

Table 1: Sample design and respons rate

Dutch officer-cadets	136	Turkish officer-cadets	213
Dutch mid-career officers	51	Turkish mid-career officers	126
Total Dutch respondents	187	Total Turkish respondents	339

The questionnaire contained some 55 items, which were divided over 10 concepts. The items were analyzed using factor and reliability analysis procedures. In order to assure for measurement equivalence in this cross-cultural dataset, we computed reliability coefficients (alpha's) for the total sample as well as for both national subsamples. All alpha's - except for one - proved to be satisfactory. The only variable with a low alpha in one part of the dataset (perception of equivalence in the Dutch subsample), however, proved to be too valuable to be left out in the analysis. In the appendix one can find the description of all items that were used in the scales including the reliability coefficients in the three research groups.

The first concept relates to *self-esteem* and consists of the 10 items belonging to the Rosenberg self-esteem scale (Rosenberg, 1965) to measure dispositional self-esteem; these items are phrased like "I view myself at least as worthy as others/ I think I am un unsuccessful person (reversed)". The second concept is a *need for closure* or *structure* scale, containing 12 items phrased like "I feel uncomfortable in situations when I do not know what might happen next/ I hate unpredictable people/I feel uncomfortable in situations with no strict rules and guidelines"; these items belong to the Personal Need for Structure scale (Neuberg & Newsom, 1993). The following scales were specifically construed for the present study. A concept named *acceptance of getting killed or wounded*

was formed on the basis of 5 items phrased like "I accept the possibility of the death (or injury) of soldiers during an operation". A fourth concept relates to *communication about death*; this scale counts 4 items phrased such as "I discuss the possibility of getting killed or wounded with my colleagues (with my family)". The following concept produced a *death fear* scale, consisting of two items phrased such as "I am afraid of being injured (or: afraid of death)". Similarly, a scale of two items referred to *importance of having a testament (in general or before a mission)*. The seventh concept, adapted from identification scales developed by Ellemers, Van Knippenberg, de Vries and Wilke (1988), relates to pride *of one's country/armed forces* containing 6 items phrased such as "It is important for me to serve in the Turkish/Dutch armed forces/ I am proud of being a Turk/ a Dutchman". The *perception of equivalence* scale contains 4 items of the type "I think Turkish/Dutch soldiers are equivalent to the soldiers of the other NATO (or: non-NATO) countries in international cooperation" respectively "I would accept what a a member of the Turkish/Dutch army would say easier than what a member of another NATO (or: non-NATO) country would say (reversed)". The next concept relates to *pride of one's service/academy*; this scale, again adapted from previous identification scales, consists of 4 items phrased such as "It is important for me to attend the academy/staff college". The final concept, to be used as a dependent variable in the explanatory analysis, is the *willingness/ability to cooperate internationally*. This scale contains 4 items phrased such as "As a soldier it is important (a pleasure) for me to serve in international missions/I think I am comparable to the soldiers of other NATO (or: non-NATO) countries".

After the construction of the scales, we performed a 2x2 (nationality and seniority) MANOVA analysis with the ten scales we constructed. This analysis aimed to demonstrate the differences between the Turkish and the Dutch military as well as between the cadets and the mid-career officers. We aim to report the significant differences (F-values) as well as the effect size measures (η^2) to indicate whether or not the significant differences are really substantial. Subsequently, we performed a hierarchical multiple regression analysis to ascertain the relation between the independent variables and the dependent variable ("willingness/ability to cooperate internationally"). The independent variables were divided into four blocks (1. the "core" TMT-variables: self-esteem, need for closure, fear of death, acceptance of getting killed or wounded, 2. communication about death and importance to have a testament, 3. the "identification" variables: pride about one's country/armed forces, perception of equivalence, pride about one's service/ academy, 4. the relevant demographic variables: seniority and nationality). Each block of variables was entered in the analysis one after another, which enabled us to demonstrate the relative importance of each block in explaining the variance in the dependent variable. The regression analyses were conducted separately for the Turks, the Dutch and the total sample.

Results

In table 2 the descriptive results for the various groups of respondents are shown. The findings demonstrate that the soldiers of the two countries differ in exactly the same manner as one would expect them to do.

Compared to their Dutch colleagues, the Turkish cadets and mid-career officers display slightly, but significantly lesser degrees of *self-esteem* ($F= 27.9$; $\eta^2= 0.05$) and considerably larger degrees of *need for closure* ($F=464.0$; $\eta^2= 0.48$). The first result proba- bly reflects the strict and punitive discipline that is enforced on the cadets and officers in the Turkish military. This comes with the fairly high degree of power distance in Turkish society in general (Hofstede, 2001) and Turkish military in particular (Soeters, Tanercan, Varoğlu & Siğri, 2004). In general, a disciplinary type of approaching people does not contribute to developing a high degree of self-esteem. The second finding seems to confirm Hofstede's earlier findings indicating that Turkish national culture is clearly more uncertainty avoidant than the Dutch national culture (Hofstede, 2001). These results come as no surprise, since they confirm earlier studies focusing on Turkish society and work relations (e.g., Wasti, 1998).

Also in confirmation with the expectations conveyed earlier in this article are the fol- lowing significant results: the Turks are substantially more *acceptant of getting killed or wounded* ($F=164.1$; $\eta^2= 0.24$), they know a slightly smaller degree of *death fear* ($F=26.6$; $\eta^2= 0.05$) and they deem it slightly less *important to have a testament*, in general or before a mission ($F=16.1$; $\eta^2= 0.03$). Only with respect to *communication about death* the pattern is not consistent: the Turkish officer-cadets and the Dutch mid-career officers discuss the possibility of dying more frequently than their colleagues in the other country; the overall difference with respect to this variable between the two national subsamples is not significant. When it comes to being *proud about one's country/armed forces* or *one's service/academy*, the Turks are – significantly and substantially - more pronounced than their Dutch fellow-military ($F=169.2$; $\eta^2= 0.25$; $F=105.2$, $\eta^2=0.17$). These findings seem to reflect the Turkish military's high and barely disputed societal prestige, which is quite different from what the Dutch military in general experience in their country. On the other hand, this difference can also be a consequence of the Dutch cultural impera- tive to be as modest as possible, not allowing individual people to express that they are proud, ambitious or simply "good at something" (van Iterson, 2000; Hofstede, 2001). The last finding in this table shows that the Turks convey that they are significantly and substantially *more willing and able to cooperate internationally* than the Dutch ($F=139.3$; $\eta^2=0.22$). Being embedded in larger international alliances may be more important to the Turks than to other militaries such as the Dutch. In fact, Turkish officers and cadets have learned to regard going abroad as highly conducive to their career and reputation.

Table 2: Manova-analysis: means and standard deviations

	Self esteem (theoretical range 10-90)		Need for closure (theoretical range 12-108)		Acceptance of getting killed or wounded (theoretical range 4-45)		Fear of Death (theoretical range 2-18)		Communication about death (theoretical range 2-18)		Importance of having a testament (theoretical range 4-36)		Pride in one's country/armed forces (theoretical range 6-54)		Pride in one's service/Academy (theoretical range 5-45)		Willingness/ability to collaborate internationally (theoretical range 4-36)	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Dutch officer-cadets	79.4	7.6	50.0	11.1	33.0	7.1	9.0	3.8	16.8	4.8	14.5	3.4	45.6	6.1	33.2	5.6	26.2	4.4
Dutch mid-career officers	80.6	7.7	48.4	12.5	33.2	6.2	8.6	4.3	17.8	5.6	13.7	4.9	44.6	5.7	31.6	6.6	27.8	4.0
All Dutch respondents [only army]	79.8 [80]	7.6	49.6 [50.1]	11.5	33.0 [33.2]	6.8	8.9 [8.7]	4.0	17.1 [17.5]	5.0	14.3 [14.7]	3.8	45.3 [45.5]	6.0	32.8 [33.2]	5.9	26.6 [27.2]	4.4
Turkish officer-cadets	72.8	10.6	72.3	10.7	40.3	5.1	5.4	4.1	18.7	6.0	13.1	4.2	52.1	4.2	38.3	5.9	31.0	4.8
Turkish mid-career officers	77.0	10.5	75.3	12.1	41.1	5.6	7.9	4.3	15.7	6.7	11.6	5.3	51.6	5.2	38.5	5.7	33.4	3.8
All Turkish respondents	74.4	10.7	73.4	11.3	40.6	5.3	6.4	4.4	17.6	6.5	12.5	4.7	51.9	4.6	38.4	5.8	31.9	4.6

All differences between Dutch and Turkish cells are significant at $p = 0.00$, except for 'communication about death'.

For the Dutch the importance of working internationally is less emphasized in their training and career development, partly because it is considered an ordinary part of the job and partly because the Dutch as a population are known to have a self-image of "knowing things best" (see e.g.: van Iterson, 2000). In general, the first set of findings underlines existing knowledge on both national cultures, and well known characteristics of their armed forces in particular.

With respect to the scores of cadets and mid-career officers and possible interactions between nationality and seniority, some differences are significant but none of them is substantial in terms of effect size measures. The most important difference between cadets and mid-career officers relates to the *willingness and ability to cooperate internationally*: mid-career officers display significantly but not substantially higher scores on this variable (F=20.4; η^2=0.04). This finding is not surprising: mid-career officers – especially the ones who have been selected to follow a course at Staff College - generally already have experienced some sort of international cooperation, which they probably have liked or at least have come to regard as important both for the military and their future career.

This brings us to our second research topic. How do the measured concepts, derived from Terror Management Theory, relate to the *willingness/ability to cooperate internationally*? Table 3 provides the answers to this question. As mentioned before, it contains three regression analyses: one for the Turkish respondents only, one for the Dutch respondents only and one for the whole sample. The intercorrelations between all independent variables in the total sample range between 0.01 and 0.45, indicating that there are no problems of multicollinearity in the dataset. The analyses provide interesting results, and all models produce relatively high *Multiple R's* (ranging from 0.48 to 0.67), explaining up to 43% of the variance of the dependent variable in the total sample. All three analyses reveal that the first block of variables – consisting of self-esteem, need for closure, fear of death and acceptance of getting killed or wounded – explains a substantial portion of the variance of the dependent variable, whereas the second block (communication and importance of having a testament) adds nothing at all. The third and the fourth block of variables both contribute significantly to explaining parts of the variance in the "willingness and ability to cooperate internationally".

Table 3: regression analyses with respect to the willingness/ability to collaborate internationally (Beta's and Multiple R's)

	Willingness/ability to cooperate internationally (only Turks)	Willingness/ability to cooperate internationally (only Dutch)	Willingness/ability to cooperate internationally (total sample)
1. Self esteem	0.06	0.08	0.07
2. Need for closure	0.08	-0.11	0.03
3. Fear of Death	-0.07	-0.12	-0.09*
4. Acceptance of getting killed or wounded	0.18*	0.25*	0.23*
5. Communication about death	-0.05	0.06	-0.03
6. Importance to have a testament	0.09	-0.02	0.06
7. Pride in one's country/ armed forces	0.14*	0.13	0.13*
8. Pride in one's service/ academy	0.21*	0.14	0.19*
10. cadet-officers vs. Mid-career officers	0.25*	0.16*	0.21*
11. Dutch/Turkish respondents	----	----	0.19*
Multiple R first block 1-4	0.39*	0.40*	0.56*
Δ Multiple R second block 5-6	0.01	0.01	0.00
Δ Multiple R third block 7-9	0.09*	0.0*	0.06*
Multiple R all variables 1-10 or 11	0.53*	0.49*	0.66*

*F-values significant at $0.00 < p < 0.05$; beta's are from the final regression analysis including all independent variables.

In the subsample of Turkish respondents, the *willingness/ability to cooperate internationally* is significantly explained by four variables, all of them showing partial correlations (*beta's*) in the expected way. Turkish respondents who are more *acceptant of getting killed or wounded* express themselves to be more willing and able to cooperate internationally. The same applies to the respondents who perceive themselves to *be equivalent to others* and who are *proud of their service and academy*. These net-effects are in accordance

with the Terror Management Theory. Finally, it evolves that mid-career – hence, more senior – officers display a larger degree of willingness and ability to cooperate internationally. We have seen this result before in the MANOVA analysis.

In the analysis based on the data of the Dutch respondents, there are only two significant correlations, which is logical given the smaller size of this subsample. This first significant finding concerns the correlation between the *acceptance of getting killed or injured* and the *willingness and ability to get engaged in international military cooperation*. This is the same finding as in the Turkish subsample and, actually, this is the core of the Terror Management Theory. Also similar to the Turkish results is the finding that Dutch mid-career officers are significantly more willing and able to cooperate internationally. In accordance with Terror Management Theory is the fact that the Dutch who show *more self-esteem* and who are *more proud of one's service and academy*, as well as of one's *country and armed forces* claim to be more *willing and able to cooperate internationally*. Also in accordance with the theory is the following: the Dutch who display a *smaller need for closure* and who express *less fear of death*, are *more willing and able to cooperate internationally*. All these results, however, are not significant at $p < 0.05$.

The analysis based on the total sample shows again that the Turkish respondents express themselves to be more willing and able to cooperate internationally. In addition, this analysis produces almost the same results as in the subsample of Turkish respondents only, which is not surprising given the considerably larger number of Turks in the study. Virtually all significant results in the two subsamples and the total sample are in confirmation with the Terror Management Theory: *more willingness and ability to cooperate internationally* comes along with less *fear of death* (only total sample), *more acceptance of getting killed or wounded*, as well as a *higher perception of equivalence* and *more pride about one's service/academy* as well as *one's country/armed forces*. Clearly, we can see here the impact of the awareness and tolerance of dying on working with outsiders, counterbalanced by the pride of the larger collectivities one belongs to.

Conclusions and reflections

This study has produced a number of notable findings. Most importantly, this study has demonstrated the validity and applicability of the Terror Management Theory in the military context, particularly the militaries of two different state-nations. It has shown that the social and psychological 'dynamics' explored in this theory have practical relevance in that they impact on the chances of achieving successful international military cooperation. When servicemen in their missions experience life-threatening circumstances and they are reluctant to accept these risks, this will negatively influence their willingness to engage in internationally composed missions. These results are so indi-

cative that the military apex can no longer afford to treat these 'dynamics' as irrelevant or of minor importance (see also: Dechesne et al., 2007; Soeters et al, 2005).

Second, this study has confirmed that there are considerable differences between the Dutch and Turkish armed forces with respect to the concepts we have measured. It is very likely that more differences would have surfaced, if more nations would have been included in this study. Even within NATO, differences between national militaries in approaching questions of life and death have shown to be substantial. This must have an impact on the way the political and military strategic apex in various countries deals with the *casualty factor* when deciding on initiating or sustaining military action. For the international community, these results are not to be neglected since they play a role in national decision making processes on whether or not to participate in international NATO-missions such as the ones in Afghanistan and Iraq or UN-missions in the various hot spots in Africa. The Dutch refusals in most recent years to participate in land operations under supervision of the UN in Sudan, Liberia and Siera Leone is undoubtedly connected with the wish to avoid incurring casualties. If one would be cynical, one could claim that – at least to the Dutch - African lives are less valuable than the lives of Dutch men and women.

This is a fairly negative conclusion with respect to the Dutch. More positive, however, may be the suggestion that the Dutch inclination to be casualty averse may be conducive to developing an own operational style in peace-supporting missions abroad. This style has become known as the *Dutch approach* stressing a limited use of violence and emphasizing the value of communication with the local population (Bos & Soeters, 2006, Soeters, 2006). It seems that in many situations this approach is likely to produce less vicious circles of violence and counter-violence. In this way, the Dutch may be perhaps be considered less *courageous*, but at the same time also less *naive*, to speak in the words of Orhan Pamuk's fictional character, Selahattin Darwinoğlu, whom we met before. To give one illustration of this operational style: after one of the two ambushes in Iraq we discussed before, the Dutch had the opportunity to capture a number of the fighters that had attacked them. They decided not to do so, in order to prevent further escalation among the population. Clearly, this is not the operational style the Turkish armed forces have been shown to display in contemporary history (e.g., Jongerden, 2006). Perhaps there may be a connection between the acceptance of deadly violence and the use of it. This idea of course needs further investigation.

Societies and their cultures, however, are not static: individualism and corresponding phenomena such as casualty aversion seem to show a certain convergence over time. For the Netherlands, this may imply a certain growth in casualty acceptance if the cause is considered to be worth it (for instance if the terrorism threat in Dutch streets would increase). For the Turkish military, modernization and Westernization may imply that in the future increasing numbers of recruits are likely to become more hesitant

towards the 'logic' of dying for their country. One observation may be relevant here. In a brief newspaper article the Turkish born Turkish-Dutch actress Nazmiye Oral (2005) criticizes the national 'euphoria' she witnessed as a young girl during the national festivities celebrating Turkey's independence and the love for Mehmetcik, the young boy who sacrificed his life for the country. Looking back and wearing Dutch-coloured glasses now, she expresses her hope that this "veneration without question marks" will transform in a more sober approach of dealing with political and conflict-related issues, today and in the future. Nazmiye Oral is interested in developments in the Turkish society at large, but – clearly - what she has to say is of imminent importance to the military too. Perhaps Turkish-Dutch Nazmiye Oral personalizes a future convergence in the ways the Dutch and the Turkish armed forces deal with the casualty factor and the style of operation in action. And actually, since Nazmiye Oral's memories go back some 30 years ago, this convergence may already have begun.

APPENDIX: scales, items and reliability coefficients in the three research groups.

1) *Self-esteem*
- I find myself at least as worthy as others
- I think I have a number of good attributes
- I think I am an unsuccessful person (reversed)
- I can do everything as good as others
- I do not have much to be proud of myself (reversed)
- I am positive about myself
- In general, I am satisfied about myself
- I wish I had more self-respect (reversed)
- Sometimes I feel really useless (reversed)
- Sometimes I think I am worthless (reversed)

Alpha total sample: 0.82; NL: 0.79; TU: 0.82.

2) *Need for closure*
- I feel uncomfortable in situations where I do not know what might happen next
- I do not mind things that break my daily routines (reversed)
- I like a clear and organized style of life
- I like having everything where it is supposed to be
- Spontaneity is an attribute I like
- I think a very organized and punctual life is boring (reversed)
- I do not like insecure situations
- I hate unpredictable people
- Organized things contribute to my happiness
- I like the excitement created by unsafe situations (reversed)
- I feel uncomfortable in situations with no strict guidelines
- Situations that require me to change my plans at the last minute bother me

Alpha total sample: 0.86; NL: 0.77; TU: 0.67.

3) *Acceptance of getting killed or wounded*
- I accept the possibility of soldiers dying during operations
- I accept the possibility of soldiers getting injured during operations
- I view the death of a soldier in combat as an acceptable risk
- I view the injury of a soldier in combat as an acceptable risk
- Death in combat is inherent to military operations

Alpha total sample: 0.84; NL: 0.79; TU: 0.77

4) *communication about death*
- I discuss the possibility of getting killed or wounded with my colleagues
- I discuss the possibility of getting killer or wounded with my family
- I often think of the possibility of getting killed or wounded
- I think that the armed forces should inform about the possibility of getting killed or wounded

Alpha total sample: 0.68; NL: 0.69; TU: 0.69

5) *Death fear*
- I am afraid of being injured
- I am afraid of death

Alpha (item-total-correlation) total sample: 0.55; NL: 0.60; TU: 0.71.

6) *Importance of having a testament*
- As a military, I find it important to have a testament
- As a military, I find it important to have a testament before a mission

Alpha (item-total-correlation) total sample: 0.85; NL: 0.93; TU: 0. 93.

7) *Pride of one's country/armed forces*
- It is important for me to serve in the Turkish/Dutch armed forces
- I am proud to serve in the Turkish/Dutch armed forces
- It is a pleasure for me to continue to serve in the Turkish/Dutch armed forces
- It is quite important for me to serve Turkey/the Netherlands
- I am proud of being Turkish/Dutch
- I always want to be on the Turkish/Dutch side

Alpha total sample: 0.90; NL: 0.84; TU: 0.87.

8) *Perception of equivalence*
- I think Turkish/Dutch soldiers are equivalent to the soldiers of the other NATO countries in international operations
- I think Turkish/Dutch soldiers are equivalent to the soldiers of non-NATO countries in international operations

- I would accept what a member of the Turkish/Dutch army would say easier than what a member of another NATO country's army would say (reversed)
- I would accept what a member of the Turkish/Dutch army would say easier than what a member of a non-NATO country's army would say (reversed)

Alpha total sample: 0.68; NL: 0.40; TU: 0.64.

9) *Pride of one's service/ academy*
- I think I have a lot of similarities with the other people serving in the Turkish/ Dutch armed forces
- It is important for me to attend the courses at the academy
- I am proud to serve for my officers' education
- I think I have a lot of similarities with the other (student-)officers at the academy

Alpha total sample: 0.77; NL: 0. 64; TU: 0.78.

10) Willingness and ability to cooperate internationally
- As a soldier it is important for me to serve in international missions
- It is a pleasure for me to participate in international co-operations
- I think I am comparable to soldiers of the other NATO-countries
- I think I am comparable to soldiers of non-NATO countries

Alpha total sample: 0.73; NL: 0. 65; TU: 0. 64).

All items were scored ranging from totally disagree (1) to totally agree (9).

International Collaboration under Threat:

A field study in Kabul[I]

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Abstract

Dutch military personnel's attitudes towards international cooperation were examined, while these attitudes where administered under threatening (during the ISAF mission in Afghanistan) or non-threatening circumstances (in Europe). Findings indicate that concerns about death were significantly more present in Afghanistan relative to Europe, and in Afghanistan, concerns about death were found to be negatively correlated with willingness to collaborate internationally. These findings provide support for terror management processes in vivo, and entail a number of important implications for international policy.

International Collaboration under Threat: A field study in Kabul

> *Communitate Valemus*
> *("Together we are strong", the motto of 1GNC)*

Current worlds' headlines urge for an understanding of the relation between threat and international collaboration. Since the emergence and spreading of terrorism as a global phenomenon, policy makers and layman alike are continually faced with situations where threats of terror directly or indirectly affect the ways in which people from different nations communicate, and perform their jobs.

Military peacekeeping missions may be considered among the most poignant situations in which the threat-collaboration relation can be observed and studied. Indeed, among the characteristics of such missions, the continual, at least diffusely threatening circumstances, and the strong emphasis on the international character of the mission, stand out. As such, peace missions provide a realistic and suitable context in which to study <u>in vivo</u> the role of threat in the improvement or deterioration of vital international collaboration. While deriving insights from terror management theory (see e.g. Pyszczynski, Greenberg, Solomon, Arndt, and Schimel, 2004, for a recent review), the present study aimed to examine the role of perceived threat on willingness to collaborate among Netherlands military who closely collaborate with the German military within the combined German Netherlands Army Corps (1GNC) while on their mission in the International Security Assistance Force (ISAF) in Kabul, Afghanistan.

Terror management theory and research

The present study has been primarily inspired by research insights derived from terror management theory (Solomon, Greenberg, & Pyszczynski, 1991; Greenberg, Pyszczynski & Solomon, 1997; Pyszczynski, Greenberg, and Solomon, 1999). This theory has been designed to come to a better understanding of the role of death in social functioning. According to the theory, humans, like other animals, have a strong desire for self-preservation. Yet, unlike other animals, humans possess a cognitive system of sufficient complexity to enable awareness of one's own mortality. The juxtaposition of the instinctive striving for life on the one hand, and the awareness of death on the other, has been posited to culminate in a state of potentially paralyzing terror if not managed by cultural worldviews and self-esteem.

Terror management theory posits that cultural worldviews provide the individual a sense of order, stability, and meaning. Moreover, cultural worldviews provide the individual a sense of what is valued, as to define for the individual what to do to be appreciated, admired, and most importantly, to be remembered by others who share the worldview. Self-esteem is defined within this context as the extent to which the

individual feels of value, and hence constitutes an indicator of the extent to which one is admired by others, and will be remembered. In this sense, by providing the perception one is of significance beyond physical existence, self-esteem is conceived of as a form of symbolic immortality, and is thereby assumed to assuage the uniquely human existential dilemma. Hence, terror management theory posits that cultural worldviews and self-esteem help to manage existential terror, and once an individual is confronted with such terror, the individual will seek out firm establishment of one's self-worth and faith in one's worldview.

Hypotheses derived from terror management theory have been tested in the so-called mortality salience paradigm (see e.g. Pyszczynski, et al., 2004, for an overview). In a typical experiment, half of the participants is subtly reminded about death, whereas a control group is reminded about a neutral topic, or a negative topic unrelated to death. This manipulation has been shown to exert a strong influence on a variety of social phenomena. Of greatest importance for present purposes is that mortality salience has been shown to enhance nationalistic bias. In many experiments, it has been shown that reminders of death led participants to favour people who commended the culture of the country of the participants, and to derogate people who were critical of the country (e.g. Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994). Moreover, it has been shown that mortality salience leads to physical distancing from foreigners (Ochsman & Reichelt, 1994). Additionally, mortality salience has been shown to increase sensitivity about national symbols (Greenberg, Simon, Porteus, Pyszczynski, & Solomon, 1995). Finally, mortality salience has been demonstrated to enhance optimism about the success of a national soccer team (Dechesne, Greenberg, Arndt, & Schimel, 2000).

Experiments as these have been designed to test the hypotheses derived from terror management theory, but have unintentionally proven of great relevance for understanding the psychological reactions to terrorism that have captured the attention worldwide particularly since the 9/11 terror attacks in New York and Washington DC (see especially Pyszczynski, Greenberg, & Solomon, 2003; see also Dechesne & Kruglanski, 2004). Indeed, just as a subtle reminder of mortality has been shown to enhance nationalism, so too have the 9/11 attacks led to an outburst of nationalism, not just in US, but throughout the world. Moreover, just as a lab experiment has demonstrated that mortality salience leads to distancing from foreigners, so too have terror attacks divided the world and have national identities rather than common interest become bases of policy. Additionally, just as mortality salience has been shown to increase sensitivity about national symbols, so too have the sales of American flags increased dramatically almost immediately after the 9/11 attacks.

Terror management in vivo

Although the parallels between the lab findings and reactions to the recent wave of terrorists' attacks are very striking, no studies exist that have directly examined the role of death threat in international relations and collaboration. And, again, following both observations of the reactions after terrorists' attacks, and the lab findings obtained within the context of terror management research, a strong relation between death threat and international collaboration is to be expected. Terror management theory is specific in its prediction: mortality threat undermines international collaboration. Hence, terror management theory and research may provide a rather sobering perspective on the fate of international collaboration and its functioning under threat, and as such, the implications of supportive evidence regarding the terror management hypothesis would not only be of interest to theorists interested in terror management but to policy makers as well.

As already noted, military peacekeeping missions may provide a particularly suitable context to examine terror management processes in vivo. By implication, these missions nearly always involve people from different nations (e.g., Elron, Shamir & Ben-Ari, 1999; Soeters & Bos-Bakx, 2003). Moreover, these missions take place in threatening circumstances, although the actual level of threat may vary. Once under particularly threatening circumstance, terror management theory predicts that the willingness to collaborate declines.

In order to examine this hypothesis, we made use of a situation that is suitable for its assessment in many ways. Since 1995, the Dutch and German armies have started close military collaboration by establishing the 1st German-Netherlands Corps (1GNC). The formation of the bi-national military cooperation resulted from the wish of the Dutch government, who sought for an international context in which to place the Dutch army. The process of cooperation was carefully managed at 1GNC's inception. One of the precautions taken to prevent the dominance of one party over the other was the obligatory use of the English language within the 1GNC. In addition, all important staff elements were to be commanded by combinations of a Dutch commander and a German deputy or vise versa. Moreover, the command of the 1GNC was taken in turns by a Dutch and German general.

The 1GNC was first deployed in Kosovo in 1999. The ISAF mission in Kabul has been its second. Looking at the actual situation of collaboration of Dutch and German troops in Kabul, there were clear signs of friction (Soeters & Moelker 2003). These frictions should not be exaggerated, because the mission was successful overall. Nonetheless, research in Kabul among both German and Dutch soldiers reveals that more stereotypical behaviour about the bi-national partners is described than in the home situation in Muenster, or the earlier deployment in less threatening circumstances in Kosovo. Indeed, the actual situation in Kabul can be described as very life-threa-

tening, including regular attacks on patrolling military, and even on the camp. In one instance, a suicide attack on a bus transporting military personnel to the airport caused five casualties and a large number of severely wounded servicemen. This attack took place in the early summer of 2003, which was a couple of weeks before our data were collected.

The present research

The present research tested the hypotheses that perceived death threat among the Netherlands military in Kabul would undermine their willingness to collaborate with military from other nations. Dutch military who were active in Afghanistan were approached by their officers and asked to fill out several questionnaires pertaining to various types of concerns about death and to their willingness to collaborate in international context. Levels of the various types of death concerns were compared with the Dutch military at the staff of the bi-national headquarters of 1GNC in Muenster, Germany, where they collaborated in international context in similar fashion as in Kabul, but under considerably less threatening circumstances.

Unfortunately, due to last minutes changes, the questions pertaining to international collaboration were not the same in Muenster and Kabul. Whereas participants in Muenster completed questions that directly pertained to the Netherlands-Germany collaboration, the questions administered in Kabul referred to international collaboration in general, i.e. there were no references to the specific Netherlands-Germany collaboration. As a result, a direct comparison between the two samples thereby became impossible. We therefore primarily report results from the international collaboration scale that was administered in Kabul. We do report a mediation analysis examining the role of death concerns in difference in willingness to collaborate internationally between the Muenster and Kabul sample, but only draw tentative conclusions from this analysis.

Apart from the key relation between perceived death threat and international collaboration, we also explored factors that may affect either death threat, international collaboration, or their interrelation. In order to examine death concerns among the Dutch soldiers, we created a questionnaire that was specifically focussed on the multifaceted nature of the death construct for military personnel. Dying may in fact be considered an integral part of the job. Building on informal observations, four elements of death concerns in the military were identified: fear of death, institutional care, communication about death with colleagues and relatives, and acceptance of the risk to sacrifice one's life during a mission. Corresponding questions were construed. Willingness to collaborate in international context was examined using self-report Likert questionnaires.

Additionally, previous research on terror management theory has revealed that self-esteem, need for closure, and social identification, affect perceptions of death. Specifically, higher self-esteem has been associated with less fear of death (Greenberg,

et al., 1993). Moreover, greater need for closure has been associated with less acceptance of death (Dechesne & Kruglanski, 2004). In addition, given the notion inherent to terror management theory that identification with self-transcending entities such as nations or the army help to alleviate mortality concerns (Castano & Dechesne, 2004; Castano, Yzerbyt, & Paladino, in press), it can be predicted that specific forms of social identity make individuals more accepting of the prospect of death if it occurs for the sake of the goals inherent to that identity. Apart from testing the main hypothesis that greater fear of death is associated with less willingness to collaborate in international context, we also examined these auxiliary hypotheses derived from terror management theory in vivo.

Method

Participants.

In Afghanistan 313 soldiers filled out the questionnaires. 76 military who filled out the questionnaires in Münster (Germany) served as control group. Although on a voluntary basis, participation was an integral part of the mission, and no extra reward was given.

Procedure and materials.

All participants received a package of questionnaires, and were asked to fill out the questionnaires in order of presentation. Participants first read a general introduction stating that the questionnaire was about international collaboration in military context, and that the questions pertained to personality factors and emotions that are of relevance during a military mission in international context. Participants were further encouraged to answer the questions using their first, gut-level response, and explained that all data would be treated anonymously.

After the introduction, several general questions followed that pertain to participant's gender, age, rank, years of service, education, family status, possible offspring, experience in foreign environment, and experience with collaboration with Germans military. Subsequently, participants filled out the items of the Rosenberg self-esteem scale (Rosenberg, 1965) to measure dispositional self-esteem, and the Personal Need for Structure Scale (Neuberg and Newsom, 1992) to measure individual differences in the need for closure. Both scales were registered using a 9-point scale.

The Military Perception of Death Scale followed. This scale was specifically construed for present purposes. It contains twelve statements, each of which pertain to a particular aspect of death in military context. Participants were asked to indicate their endorsement of the items on a 9-point scale, whereby 1 indicates completely inapplicable, and 9 indicate completely applicable. Principal component factor analysis with

varimax rotation performed on the scores of all participants yield four factors, using the criterion of factor loadings >.30. Two items were found to capture fear of death: "I am afraid of death" and "I am concerned with death" (α = .52). Three items were found to capture institutional care of death: "As a soldier, I find it important to have a testament", "I find it important that the military provides information to relatives about the consequences of dying during missions", and "As a soldier, I find it important to make a testament before a mission" (α = .73). Three additional items were found to be related to communication about death: "I talk with colleagues about the possibility of getting killed during a mission", "I talk at home about the possibility of getting killed during a mission", and "In my current function, I think a lot about my own death" (α = .66). Finally, four items were found to capture acceptance of the risk of dying during a mission: "I find it acceptable to die as a soldier during a mission", "I find it acceptable to get wounded as a soldier during a mission", "In my current function, there is a chance that I'll die", and "Dying is part of military missions" (α = .78).

In the subsequent part of the questionnaire, participants were asked about their identification with various groups. This was done by means of adapted versions of identifications scales developed by Ellemers, Van Knippenberg, De Vries, and Wilke (1988). Participants were asked to indicate on 9-point scales their endorsement with the following statements "I find it important to be part of …", "I am proud to be part of…", "I would like to continue to be part of …", and "I have a lot in common with other members of …". These questions were asked with respect to the Royal Netherlands Land Army and The Netherlands (α =.76, and α = .78, respectively).

Similar questions were also asked with regard to willingness to collaborate in international context. For this index, fourteen items were used. Typical items include "I am proud to serve in an international context", "I find that the Dutch are generally collaborating well with soldiers from Western countries", I find that the Dutch are generally collaborating well with soldier from non-Western countries", and "I am more inclined to accept an order from a Dutch military that from a soldiers of other Western countries". As can be induced from these examples, we had an initial interest in the distinction between collaboration with Western vs. Non-Western countries. However, factor analysis revealed no differences (i.e. all items loaded on one factor), and hence, the items pertaining to Western and Non-Western collaboration in military context were collapsed as to create a general index of willingness to collaborate internationally (α =.63).

Additionally, several items of the collaboration in international context pertain to the participants' own experience (e.g. "I am more inclined to accept an order from a Dutch military that from a soldiers of other Western countries"), whereas others pertain to a more general impression of the success of the international collaboration (e.g. "I find that the Dutch are generally collaborating well with soldiers from Western countries"). Although the factor analysis revealed that all items loaded on a main factor with an

eigenvalue of 4.34, we also found a second factor with an *eigenvalue* of 2.10 that supports a differentiation between items asking about participants' own experience versus a more general view on how the international collaboration works out. However, because analysis of the "own experience" and "general view" measures yielded virtually identical results, and the composite of the two yielded virtually identical results compared to the separate measures, we only report the results with regard to the measure where all fourteen items are summed.

These questions completed the present study. After some additional questions, participants were thanked for their cooperation, and dismissed.

Results

Differences in perceived threat.

In order to examine whether the situation in Kabul was actually more conducive of death-related thought than Münster, we compared the scores on the Military Perception of Death factors between Kabul and Münster, using a 2(Location: Kabul vs. Münster) between-subjects x 4(Death factor: Fear, Institutional Care, Communication, and Acceptance of risk) within-subjects Multivariate Analysis of Variance (MANOVA).

Table 1: Means for the Kabul-Muenster comparison on the death factors

		Kabul	Münster
Death Fear *	M	4.64	3.70
	SD	1.53	1.50
	n	313	76
Institutional Care	M	6.57	6.88
	SD	1.88	1.87
	n	313	76
Communication *	M	4.25	3.56
	SD	1.91	1.91
	n	313	76
Acceptance of risk *	M	6.07	5.26
	SD	1.81	1.65
	n	313	76

Note. Scores could range between 1 and 9, whereby higher scores indicate greater applicability of the construct. Scores with * differ at $p<.01$ between Münster and Kabul.

This analysis yielded a highly significant interaction between Location and Death Factor: $F_{(4, 384)} = 10.26$, $p<.001$. The Univariate effects revealed that scores on all death factors were elevated except for institutional care. With regard to institutional care, no main effect was found, $F_{(1,387)} = 1.63$, $p<.21$. The other death factors all yielded highly significant main effects. Fear of death was found to be considerably higher in Kabul than in Münster, $F_{(1,387)} = 22.96$, $p<.001$, participants in Kabul reported to communicate more about death than participants in Münster, $F_{(1,387)} = 7.91$, $p<.006$, and Kabul participants were more acceptant of the risk of dying during the mission than participants in Münster, $F_{(1,387)} = 12.64$, $p<.001$. Relevant means are displayed in Table 1. These findings indicate that participants in Kabul were generally much more concerned with death, in many of its facets, relative to participants in Münster.

Threat and International Collaboration.

Subsequent analyses focused on the main hypothesis that death threat undermines the willingness to collaborate internationally. To do so, Linear Regression Analyses were used, whereby the international collaboration index was considered the dependent variable. Predictors included the four death factors, as well as self-esteem, need for closure, and identification with the Royal Netherlands Land Army (RNLA) and the Netherlands[2]. This overall model turned out to be highly predictive of the willingness to collaborate in Kabul, $F_{(8,286)} = 6.30$, $p<.001$.

Several predictors were found to have a significant effect on the international collaboration index. Foremost, as predicted, a significant effect was found of fear of death. Greater fear of death was found to be associated with lower willingness to collaborate, $\beta= -2.839$, $p<.006$. Among the death factors, only acceptance of death was also significantly associated with collaboration, $\beta= 2.019$, $p<.05$. However, in this case, greater acceptance was positively associated with willingness to collaborate or inversely, less acceptance of death turned out to come with a lesser degree of willingness to cooperate internationally. This, again, supports the main hypothesis that mortality salience undermines international collaboration.

The regression analysis also revealed two other factors predictive of willingness to collaborate. First, greater identification with the RNLA was found to be associated with greater willingness to collaborate, $\beta=.354$, $p<.001$. Moreover, higher self-esteem was found to be associated with greater willingness to collaborate, $\beta=2.08$, $p<.04$.

"Mediation".

As already explained, the difference in willingness to collaborate internationally between Münster and Kabul could not be assessed directly because of the difference in subject of the international collaboration scale used at the two locations. Nonetheless, we were tempted to use mediation analytic techniques to examine whether death related

concerns could, at least partially, account for differences in willingness to collaborate internationally between locations. To this end, the scores of the Münster international collaboration index and the Kabul international collaboration index (the scales were identical in format) were first standardized and these standard scores were then used for further analysis.

An independent sample t-test revealed a significant effect of location, $t(414)=2.59$, $p<.01$, with greater willingness to collaborate in Münster ($M=.26$) than in Kabul ($M=-.06$) . Again, conclusions that can be derived from this analysis are limited because not only the location, but also the subject of the questions differed. The subsequent analysis of possible mediation of death threat were more informative. Given that location significantly effected death concerns, and death concerns were significantly associated with willingness to internationally collaborate, all condition were met to test whether death concerns played a mediational role in the difference between Kabul and Münster in the international collaboration scores. A Sobel-test indeed indicated that the mediation was indeed significant, test statistic=2.32, $p<.03$. This mediation turned out to be partial, as the differences between locations remained significant when death concerns were entered as covariate in the analysis of the effect of location on willingness to collaborate internationally, $F(1,393)= 4.186$, $p<.05$. Nonetheless, the significant Sobel test statistic provides further support for the central hypothesis.

Auxiliary hypotheses.
Exploratory within-cell correlational analyses revealed supportive evidence for converging effects of the lab findings obtained in the context of terror management theory and the real life threat in Kabul. Specifically, as found in the laboratory, greater need for closure was found to be negatively correlated with acceptance of the risk of dying in Kabul, $r = -.23$, $p<.001$, but not in Münster, $r = -.11$, *ns*. Moreover, greater national identification was found to be positively correlated with acceptance of death in Kabul, $r =.12$, $p<.04$, but not in Münster, $r=.07$, ns. Consistent with earlier lab findings, greater self-esteem was found to be associated with significantly less concerns about death. However, inconsistent with expectations, this correlation was only significant in Münster, $r = -.26$, $p<.03$, but not in Kabul. Overall, however, these correlations testify to the potentially fruitful cross-fertilization of the lab research on terror management theory and the study of threats in real life.

Conclusion and Discussion

The goal of the present research was to examine the replicability of terror management theoretical experimental findings in a situation of realistic threat and international collaboration, as to further illustrate the practical relevance of the terror

management perspective for understanding real world problems and issues. In doing so, we made use of a situation in which real threat exists and where individuals from different countries are forced to collaborate. The ISAF peacekeeping mission in Kabul has indeed been described as a mission involving considerable threat, and hence, following terror management theory and research, it could be predicted that under these circumstances, international collaboration among the nations involved in the mission would deteriorate.

Although we did not obtain direct evidence of the role of threat, or death concerns, in the actual deterioration of the willingness to collaborate with foreign nationals among Dutch military who worked there, we believe the findings that were obtained in the present study clearly speak to this idea. It was found that in Kabul, perceived threat and concerns with death were much higher than in Münster, where the same type of military personnel worked in a similarly international context under much less threatening circumstances. Moreover, in Kabul, a clear negative relation between death concern and willingness to internationally collaborate could be observed, whereas acceptance of the risk of death was found to positively correlate with willingness to collaborate in international context. Given that defiance of death constitutes the opposite of death fear, we find this correlation consistent with the terror management analysis presented.

Although the difference between Kabul and Münster in wording of the questions pertaining to international collaboration prevented any firm conclusions regarding the role of threat in the deterioration of international collaboration in Kabul, we nonetheless consider the results of the mediation analysis supportive of the central hypothesis. That is, the mediation analysis yielded a significant Sobel test statistic, that we believe is difficult to account for on another basis than the analysis presented throughout this article. Although the differences in willingness to collaborate internationally can be accounted for by a greater number of factors than those of pertinence for the hypothesis under investigation, we believe the mediating role of death concerns in the difference between Münster and Kabul do pertain to the psychologically relevant variable of international collaboration. Indeed, if the questions asked in Münster and Kabul would have been similar, perfect support for the hypothesis would have been provided.

In conclusion, then, we believe the present research findings are of great importance to terror management theory, and at least of equal importance for the understanding of pertinent global issues.

Implications for terror management theory

With regard to terror management theory, we find the in vivo replication of tendencies only directly observed in experimental lab settings particularly noteworthy. Indeed, terror management theory, and more specifically the research paradigm, has been cri-

ticized for its lack of correspondence with real-life threat (e.g. Muraven and Baumeister, 1997). Nonetheless, such criticism has faded since the spreading of terrorism as a global phenomenon, as many parallels between the mortality salience can be observed. The present experiment is, however, actually the first to directly demonstrate the real-life viability of mortality salience effects. And not only the main hypothesis derived from terror management theory that death concern undermines international collaboration was actually observed, but also other phenomena found in the lab, such as the role of need for closure and national identification in the acceptance of the risk to die were found to exist in a real-life threatening situation. Hence, we find the correspondence in findings between the lab and the real world particularly encouraging. It provides further support for the notion that terror management theory and research are of great relevance for understanding the global problems of our times. In fact, as the research further develops, it may culminate in technology that would allow to more directly help people manage the terrors that seem to be so omnipresent nowadays.

Although the reported findings are highly consistent with terror management theory, a critical follower of the literature may note that the present research deviates in one significant aspect from the lab research. Specifically, a growing body of research suggests that terror management processes primarily occur at unconscious levels, and the measures used in the present study only capture the conscious components of death concerns (see Pyszczynski, et al., 1999). In response, it could be stated that the conscious/unconscious distinction may be of less relevance in the context of real-life death threat. What matters may be the extent to which concerns about death become suffused in the experiential rather than the cognitive system.

Indeed, building on the work of Epstein (1994) on the functioning of cognitive and experiential system, Simon et al., (1997) have observed that terror management processes primarily occur once participants are in an experiential mode of information processing. It seems reasonable to suggest that death concerns are processed experientially in a situation of continual, diffuse death threat such as in Afghanistan. And, although processed experientially, death thoughts may still be reported by the person experiencing it. But clearly, further studies using different measures that tap death concerns at different levels of consciousness are direly needed to further advance the understanding of this role of unconscious and conscious concerns about death in real-life situations.

Implication for policy

Needless to say, further studies are not only of relevance to advance the fundamental understanding of terror management processes, but are also of great relevance for the understanding of important issues that policy makers are facing worldwide. In particular, multinational military cooperation may benefit from insights developed in this

stream of theory. Multinational military collaboration only seldom develops smoothly, which – as we have seen now- may at least partly be explained by the life-threatening circumstances that sometimes prevail in such missions.

There are a variety of ways in which terror management theory and research could be used in the context of military missions. For example, research on the mortality salience effect has shown that individual differences play a crucial role in how people cope with mortality threat (e.g. Harmon-Jones et al., 1995; Mikulincer and Florian, 2000; Dechesne & Kruglanski, 2004). Awareness of these individual differences may help to select individuals who are particularly capable of maintaining psychological equanimity under threatening circumstances. In addition, research on terror management may identify the potential positive and negative consequences of carrying out military missions in international context. As we have attempted to show, it appears that in Kabul, the threatening circumstances were associated with a deterioration of the collaboration. But further experimentation may also demonstrate boundary conditions of this effect: Whereas *some* international collaboration may be undermined by threat among *some*, this does not imply that *all* forms of international collaboration are undermined among *all*. We are hopeful that the experimental mortality salience paradigm may unveil these boundary conditions.

On a more global level, the idea that death threat undermines international collaboration may pose a considerable problem to virtually all peace missions around the world. It suggests that although the international context in which peace missions take place may be instrumental to political considerations, when it comes to the work in the field, the international ambitions may hamper rather than enhance the success of the mission. Hence, we believe the issues addressed by terror management research may have thorough implications for carrying out military missions in international context.

Closing Remarks

Again, the present research is, to our knowledge, the first to directly demonstrate that terror management experiments have direct predictive power in real life situations. And we believe the present results are particularly encouraging in this respect. They suggest that fundamental research may help to identify the direct and indirect social consequence of terror threats, as well as to identify the adaptive and maladaptive forms of terror management, and to specify moderators of such consequences and forms. In this respect, the Lewinian maxim "there is nothing as practical as a good theory" seems to be as pertinent as ever, and acknowledgement of the maxim by both scientists and policy makers in the light of the current world's turmoil seems to be highly recommended, hopefully, ultimately, to the benefit of all.

Endnotes

2 Initially, rank and demographic variables were included in this analysis, but since none of these additional variables yielded insights of pertinence to the research questions, the effects of these variables will not be discussed.

The Uphill "Hearts and Minds" Battle:
The Role of Perceived Threat and Idealistic Motivation in Perception of a Local Population during a Peace Mission

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This chapter will be submitted to *Group processes and intergroup relations*

Abstract

This study examines the role of threat and idealistic motivation in the increased negativity of evaluation of the local population during a peace mission in Uruzgan, Afghanistan. Participants were asked before and during deployment about perceived threat, idealistic motivation, and perception of the local population. During deployment, soldiers report a more negative view of the local population than before deployment. Greater perceived threat during the mission is found to amplify the more negative evaluations of the locals. Soldiers' idealistic motivation is related to increased favourable perceptions of the locals during the mission.

The Uphill "Hearts and Minds" Battle: The Role of Perceived Threat and Idealistic Motivation in Perception of a Local Population during a Peace Mission

In contemporary "4th generation warfare", winning the 'hearts and minds' is the key to success. In order to achieve this objective, the military must be culturally knowledgeable and emphatic to thrive in an unfamiliar social and physical environment (e.g. Scales, 2004). The soldiers' attitude towards the local population constitutes a central element. Despite the best intentions, however, intergroup attitudes between peace mission operatives and local population in areas of conflict throughout the world remain ambivalent, if not downright hostile. Given the importance of smooth collaboration and local support, it is imperative to understand the factors that lead to deteriorated relations between peace mission operatives and the local population. In an attempt to contribute to the debate, the present research investigated perceived threat and idealistic motivation as factors that affect the deteriorating intergroup attitudes in the threatening circumstances of a peace mission in Afghanistan.

The uphill "hearts and minds" battle

In order to win the "hearts and minds" battle, modern military training and operations emphasize intercultural awareness (Gooren, 2006; McFate, 2005). For instance, the US military has developed a Human Terrain System, in which a social scientist, usually a cultural anthropologist, is assigned to inform the military on cultural issues and win the trust of the locals (Kipp, Grau, Prinslow, & Smith, 2006; Fattahi, 2007). The intensity of the intercultural awareness efforts not only underscores the importance of success in the hearts and minds battle, but also shows the difficulty of establishing profound intergroup trust. Local values differ greatly from one's own cultural background. Despite knowledge of foreign cultures, a great deal of conscientiousness is required to relate to the local population. In "the fog of war", determining who is friend and who is foe can be a very strenuous task.

Intergroup relations theories are relevant in this context. The classic study of boy camps (Sherif, et al, 1961) has been extended to demonstrate the powerful influence of ingroup or outgroup categorization on a great variety of behaviors (see Brown and Hewstone, 2005 a review). Peace mission operatives do not deal with just any sort of outgroup. The very essence of the mission is to relieve an often hostile, extraneous group that has experienced profound suffering. In these circumstances, infra-humanization of members of such groups (i.e. the population the soldiers are supposed to help) is a common tendency (Haslam, Bain, & Douge, 2005; Castano and Giner-Sorolla, 2006). Gaunt et al. (2005) have posited that infra-humanization constitutes a defence mechanism to cope with chaos and uncertainty. Denying outgroup members' uniquely human characteristics, and thereby their humanity, helps to reduce the impact of the strong

negative emotions that would result from empathic connection. Consistently, Cuddy, Rock, and Norton (2007) found that in the wake of Katrina, relief workers discriminated in their allocation of 'uniquely human' emotions (e.g. anguish, mourning, remorse) on the basis of racial categorization, assigning greater humaneness to victims of one's own racial category relative to others.

To the extent that hearts and minds operations are critical in the context of contemporary warfare, and that infrahumanisation plays an important role in the interaction between the soldiers and the local population, it is of interest to examine the intrapersonal dynamics that gives rise to increased negative perceptions of the local population. The present research sought to investigate the importance of perceived personal threat and idealistic motivation in perception of the local population during peace missions, the ISAF mission in Uruzgan, Afghanistan in particular.

Personal threat. Perceived threat to one's existence may undermine positive relations between the soldiers and the local population. Several studies have shown that people who have casually considered their mortality (mortality salience; MS) exhibit enhanced favourability to like-minded others and increased negativity towards the dissimilar (Arndt, Greenberg, Pyszcynski, & Solomon, 1997b; Arndt, Cook & Routledge, 2004). This mortality salience effect is found in the context of patriotic identification, and generalizes to increased liking for a great variety of ingroups and disliking for a great variety of outgroups. To name but one example, Greenberg et al.'s (1990, Study 1) found that mortality salience engenders anti-Semitism among Christian subjects. In addition, Ochsman and Mathy (1994) found in two studies that German university students' attitudes and behavioural response to foreign students were affected by thoughts of death. Mortality salience led subjects to report less favourable general attitudes towards foreigners, and in a second study to sit closer to a German student and further away from someone covered in a Burqa after mortality salience.

Previous research among soldiers demonstrates the influence of threat during military missions on soldiers' attitudes. Dechesne, Van den Berg & Soeters (2007) found that increased concerns with death during an ISAF peace mission in Afghanistan was associated with decreased willingness to collaborate with soldiers from other nations. To the extent that perceived personal threat increased intergroup differentiation, greater perceived threat while involved in a dangerous peace mission may account for less favourable perceptions of the local population.

Idealistic motivation. At the same time, being engaged in a peace mission in Afghanistan, helping out the suffering, and eradicating the threat of terrorism, may very well provide a sense of meaning and purpose. This sense of meaning and purpose is of course contingent upon the relation with the locals. Idealistic motivation may induce what Clark and Mills (1993) have labeled a communal relationship whereby one gives benefits to others on the basis of the other's need, rather than on the basis of previously

received benefits. Despite the inability of the locals to reciprocate, a sense of idealism, and framing of one's motivation in terms of meaningful goals, and the accompanying construal of communal relationship between soldiers and the locals, may thus establish a positive relation connection with the locals.

Idealistic motivation x threat. Further, terror management theory (Pyszcyznski, Greenberg, & Solomon, 2004), i.e. the theory that has inspired mortality salience research, suggests that emphasis on the symbolic, meaningful, idealistic components of the mission may not only directly influence intergroup evaluations, but may also moderate the effect of threat on intergroup attitudes. The theory suggests that engaging in particularly meaningful activities helps to maintain a sense of symbolic value that allows one to transcend the limits of physical existence and thereby to reduce concerns with death. Several studies have shown that a positive view of one's self and one's actions reduce defensiveness following a reminder of one's mortality (Greenberg et al., 1992; Greenberg et al., 1993; Harmon-Jones et al., 1997). To the extent that perceived meaningfulness of the mission enables to maintain psychological equanimity in the face of threat, greater idealistic motivation should also indirectly mitigate the effect of threat on deteriorated perception of the local population (see also, Niesta, Fritsche, and Jonas, 2007; see also Schok, Kleber, Elands and Weerts 2008).

The Present research

Thus, the goal of the present research is to investigate the effect of participating in a mission on perception of the local population, and to examine the moderating role of experienced threat and of perceived meaningfulness of the mission. To this end, we administered a survey among Dutch soldiers who were deployed within the Task Force Uruzgan (TFU) to the Afghan province of Uruzgan in Fall 2006. This mission has been considered controversial and of high-risk. The main task of the soldiers was to assist the work of so-called Provincial Reconstructions Teams by providing safety for these teams, as well as for the local population. Violent confrontations with the opposing military forces, generally referred to as the Taliban, and bombings or suicide attacks with improvised explosive devices, resulted in casualties.

This study was performed as part of a study on morale of the soldiers in this mission. The complete survey consisted of the Dutch Morale Questionnaire (DMQ)(Tibboel, van Tintelen, Swanenberg & Van der Ven, 2001; Boxmeer, Verwijs, Bruin & Duel, 2007) and a number of questions that were included specifically for the purpose of the present study. The survey was administered during preparation for deployment to Afghanistan in the Netherlands and administered again within the same unit during deployment to Afghanistan. We tested for differences in evaluation of the local populations before and during the mission of Afghanistan. Evaluation of the local population was expected to be less favourable during the mission than before the mission. Perceived threat was

expected to have a negative influence, and to partially account for the decreased favourability ratings during the mission. Idealistic motivation was expected to directly influence perceptions of the local populations in a positive direction, and indirectly affect perception by mitigating the effects of threat on decreased favourability ratings.

Method

Participants.

675 Dutch Military personnel completed the survey during preparation for deployment to Afghanistan in the Netherlands, and 701 individuals within the same unit completed the questionnaires during deployment to Afghanistan. A total of 358 completed the survey both before and during the mission. The scores of these 358 participants were used for the analyses to be reported below.

Procedure.

Soldiers participating in the DMQ filled out the questionnaire either in the barracks prior to deployment or at the compound during deployment. The questionnaire was administered by military psychologists of the Netherlands Services Centre of Behavioural Sciences.

Participants first read a general introduction stating that the questionnaire was about morale, leadership and perception of threat. Participants were encouraged to answer the questions using their first, gut response, and it was explained that all data would be treated anonymously. The questions in this study are measured on a 9-point Likert-scale, whereby 1 indicates completely inapplicable, and 9 indicates completely applicable. The key variables were measured by means of the following questionnaires:

1. *Evaluation of the local population.* This scale consists of five statements about the local population. Participants were asked to indicate their endorsement with the items: "I think that the local population is generally trustworthy". In subsequent items, "trustworthy" was replaced by "peaceful", "respectable", "sympathetic", and "of good will" (α=0.90).

2. *Perceived threat* was measured during deployment by means of the statements: "During this mission there have been truly life-threatening situations", "During this mission I have been exposed to real life-threatening situations", and "During this missions other soldiers have been exposed to truly life-threatening situations" (α=0.87). In the statements before deployment, the questions pertained to expected rather than actual threat. For example, rather than referring to actual life-threatening situations, the statement before deployment read "During this mission I expect to be in truly life-threatening situations".

3. *Idealistic motivation* was captured by means of four items: "I take part in this mission, because I want to contribute to peace and security", "I take part in this mission to

fight terrorism", and "I take part in this mission in order to support the reconstruction of society in Afghanistan" (α=0.78).

Upon completion of the questionnaires, participants were informed about the procedure of data collection and plans for publishing, and were further informed about the background and goals of the study.

Results

For all measures, we calculated composite scores by summing up the individual items. We tested the difference between pre-deployment and deployment situations in evaluation of the local population, and assessed the effects of perceived threat on changes in evaluation of the local population, and the role of idealist motivation in these effects. We did so by performing a 2(Time of Evaluation: pre vs. during employment) within-subjects Analysis of Covariance with Perceived Threat during the mission and Idealistic Motivation during the mission, and their interaction, as covariates.

The differences between deployment conditions in evaluation of the local population turned out significant, $F(1, 313)=25.161$, $p<.001$. Participants indicated more negative evaluations during the mission (M=3.83, SD=1.55) than before the mission (M=4.31, SD=1.42). The analysis further yielded highly significant Time of Evaluation x Threat, and Time of Evaluation x Idealistic Motivation interactions. The three way-interaction between time of Time of Evaluation, Threat, and Idealistic motivation, however, failed to reach significance, $F(1,313)=.24$, $p<.63$. Importantly, Threat was found to significantly co-vary with changes in perceptions of the local population, $F(1,313) =14.24$, $p<.001$. Consistent with the analysis put forth, this relation is negative. Greater Perceived Threat during the mission is associated with stronger shifts towards negative evaluations from pre-deployment to actual deployment (β=-.21). The effect of Idealistic Motivation on changes in perception of the local population was also significant, $F(1,313)=35.23$, $p<.001$. In this case, greater Idealistic Motivation is associated with more positive evaluations of the local population during the mission than before the mission (β=.33). Threat appears to undermine positive feelings towards the local population during deployment, and Idealistic Motivation buffers against negative perceptions of the local population during the deployment. The absence of an interaction of Threat and Idealistic Motivation indicates that Idealistic Motivation does not buffer against the negative effects of threat on changes in evaluation of the local population during deployment.

Discussion

The purpose of this study was to examine the role of threat and idealistic motivation in the increased negativity of evaluation of the local population during a peace mission. The study was conducted among soldiers who were deployed in a high risk mission in southern Afghanistan. The mission aimed to assist the reconstruction of the ravaged Afghani society. The study shows that during deployment, soldiers report a more negative view of the local population than before deployment. Perceived threat is found to affect this greater negativity towards the locals, with greater perceived threat during the mission leading to more negative evaluations of the locals. Soldiers' idealistic motivation was positively related to favourable changes in perceptions of the locals while involved in the mission.

We believe that the present research findings are of importance for several reasons. First, the results of this study contribute to the understanding of intergroup perception under threat. Consistent with previous studies on terror management theory, the present findings show that life-threatening situations polarize interpersonal evaluations that are based on social categorization. We believe that the convergence of the presently obtained findings, using actual life-threatening situations that are primarily induced through insurgent terrorism, with the laboratory findings obtained in the context of terror management theory, validates and underscores the relevance of further experimentally investigating the role of threat in social behaviour. We also think the role of idealistic motivation in perceptions of the local populations is of interest. The present research findings seem highly consistent with those of Cuddy, Rock, and Norton (2007) whom demonstrated that outgroup infrahumanization in the wake of Katrina was mitigated by the intention to volunteer for Hurricane relief efforts. Hence, Cuddy, et al. found exactly the same relation we observed in the present sample, i.e. a positive relation between intention to help and favourable evaluations of the outgroup population in need of help.

The results shed light on the paradoxical process of military peace missions in which conquering 'hearts and minds' of the local population is a critically important part of the mission. The quality of the relationship with the local population depends on the soldiers' attitude towards the population. All too often, and especially in Afghanistan, this positive attitude is jeopardized by terrorist attacks committed by groups whose members look similar, but are unrelated to the population the mission aims to help. As shown in this study, the attacks undermine the soldiers' attitudes towards the local population and thereby undermine the chance of success of the mission.

It is of interest to consider factors that may increase positive perceptions of the local population during deployment. In this regard, the positive effect of idealistic motivation on intergroup evaluation suggests that it is important to take social motivational

variables into account during selection of participants. Leadership may also emphasize the significance and idealistic aspects of the mission. Apart from motivation, it is also of interest to consider variables that pertain to the soldiers' capability to interact with and positively perceive the local population. For example, the concept of intercultural intelligence (Earley, & Ang, 2003), i.e. the ability to successfully adapt to a new sociocultural environment, not only incorporates motivational, but also cognitive and physical components. Further research may help to clarify whether cognitive and physical factors influence perception of local population during peace missions.

Overall, "winning hearts and minds" may turn out to be an uphill battle when fought on a ground characterized by threat and diversity. Research may help to identify the factors that contribute to, or mitigate, intercultural misunderstandings. In doing so, the research may play a role to play in promoting peaceful and constructive efforts to relieve war-torn societies.

General discussion and conclusions

Coping with threat is inherent to the military profession (Kümmel, & Leonhard, 2004). However, soldiers not only have to cope with threat on a professional level, but also on a personal level. The issue of threat was already addressed during the Second World War, for example when soldiers 'fear of fear' was described (Boring & Van de Water, 1943; Dollard, 1944; Grinker & Spiegel, 1945). Exposure to the battlefield is likely to overwhelm soldiers with mortal dangers, and hence to create awareness of death (Noy, 1991; Solomon, Mikulincer, & Benbenishty,1989; Kolditz, 2006). This awareness, I argue in this dissertation, alters soldiers' view on the mission, of themselves, and of others, and therefore, substantially affects the mission.

Terror management theory (Solomon, Greenberg & Pyszczynski, 1991; Greenberg, Pyszczynski & Solomon, 1997; Pyszczynski, Greenberg & Solomon, 1999) inspired many of the ideas of in dissertation. The main premise of terror management theory is that once an individual is aware of his/her mortality, the individual will seek out firm establishment of one's self-worth and faith in one's worldview. Terror management researchers initially investigated their predictions in experimental contexts. Participants in lab experiments were subtly made aware of their own mortality by asking to think about their own death, and were found to exhibit self-esteem enhancing and worldview bolstering behavior (Rosenblatt, Greenberg, Solomon, Pyszczynski, Lyon, 1989; Solomon, Greenberg, Pyszczynski, 2004).

Later studies revealed that natural reminders of death resulted in findings as expected by terror management theory (Nelson, Moore, Olivetti, & Scott, 1997; Pyszczynski, Wicklund, Floresku, Gauch, Koch, Solomon & Greenberg, 1996). Real life events such as terrorist attacks also showed reactions among the general population that were similar to the terror management lab findings and that fit the assumptions of this theoretical framework (Pyszczynski, Solomon, Greenberg, 2002; Olivas-Luján, Harzing, & McCoy, 2004; Bligh, Kohles, & Meindl, 2004; Goodwin, Willson, & Gaines Jr, 2005; Echebarria-Echabe, & Fernández-Guede, 2006).

Soldiers, and other high-risk professionals, are likely to be affected by threat, which in turn may affect mission outcomes. Hence, study of the influence of threat on soldiers' mission related attitudes is highly relevant. Some effects of threat that are relevant in this context include stereotyping and preference for stereotypic objects, ingroup favoritism and prejudice, avoidance of insecurity, aggression towards others, and need for leadership (Niesta, Fritsche, Jonas, 2008). The studies in this dissertation focus on mission related attitudes that may have a direct impact on soldiers' behavior during a mission. The impact of threat on soldiers' attitude towards international and intercultural collaboration, acceptance of the risk of dying during deployment, their motivation for the mission, and their willingness to fight, were subjected to systematic scrutiny.

Before discussing the overall conclusions of this thesis, I will present a short summary of each chapter. I will close with the implications of the findings for military leaders, policy makers and academics.

Self-perceptions of Soldiers under Threat: A field study of the influence of death threat on soldiers

In this study on self-perception of soldiers under threat, soldiers who were deployed to Iraq and similar soldiers who were at the time at the barracks in the Netherlands were compared with regard to mission related attitudes. The first objective of this study was to examine differences in the perception of threat of soldiers who were confronted with *in vivo* threat during deployment in a mission and soldiers in the barracks who did not face threat. Finding such differences would show that *in vivo* threat as experienced by soldiers during deployment may serve as mortality salience induction. Mission related attitudes were measured. This measurement included self-perceptions about performance, mission related motivation, identification with members of the ingroup (Royal Netherlands Army) and willingness to collaboration internationally. We also focused on implicit and explicit attitudes towards death.

The findings show no effect of threat on soldiers' fear of death or their acceptance of the risk of dying. However, in this study, the accessibility of death-related thoughts appears to be lower among soldiers in the threat condition. Moreover, soldiers' mission related motivation decreases under threat. In further analyses, the previously reported positive relation between higher acceptance of the risk of dying and greater willingness for international collaboration was corroborated, but only for deployed soldiers. Higher acceptance of the risk of dying was also associated with elevated compliance with the mission and internal motivation for the mission among soldiers under threat as well as at the barracks. Finally, among deployed soldiers, higher acceptance of the risk of dying was associated with higher identification with the Royal Netherlands Army.

Some soldiers only reported minor real threat whereas others reported vast threat, as indicated by statements that their own life and that of their comrades have been at point of death. The most remarkable finding here was that more threat was associated with higher acceptance of the risk of dying, higher self-assessment of operational readiness, more compliance with the mission and more internal motivation for the mission at hand, and finally stronger identification with the Royal Netherlands Army compared to soldiers who had experienced low or medium threat. Additional analyses revealed that stronger identification with the Royal Netherlands Army was particularly associated with higher willingness for international collaboration.

To sum up these complex findings, it seems fair to conclude that deployed soldiers are confronted with *in vivo* threat, which affects their mission related attitudes. Moreover, the extent of real threat matters. Overall, soldiers' self-reported performance is higher under threat, while motivation for the mission seems to be jeopardized.

Accepting Death in the military: a Turkish-Dutch comparison

In this study, the acceptance of the risk of dying among Turkish and Netherlands military cadets and mid-career officers and the impact of possible differences on soldiers' willingness for international collaboration was examined in 2004. Although both nations are members of the military alliance of NATO, clear differences in culture and security situation between the nations are apparent. Turkey has a strong military tradition. Despite the actual risk of dying due to national security issues, Turkish men, in general, consider it an honor to serve in the military. The Netherlands military tradition, whilst existing, is at least overtly less focused on honor. Also, Dutch society often has an uncomfortable relation with the military and the use of violence as such (Soeters, 2000; Van der Meulen & Soeters, 2005).

The Turkish officers in this study report significantly lower fear of death and greater acceptance of the risk of dying as well as higher willingness for international collaboration than their Dutch counterparts. Analyses of the influence of these factors on the willingness to collaborate internationally revealed that higher acceptance of the risk of dying was both for Turkish and for Dutch officers positively related to higher willingness for international collaboration. In the total sample, fear of death appeared to have a converse relation with international collaboration. Higher fear of death was related to lower willingness for international collaboration.

International Collaboration under Threat: A fieldstudy in Kabul

The third study was conducted in 2003 among military staff, while part of the headquarters' staff was deployed to lead an international peacekeeping mission in Afghanistan, and another part of the staff personnel remained at the permanent headquarters' location in one of the home nations. Staff personnel who were not deployed were not confronted with threat. Staff members who were at the time of the study in Kabul were confronted with enhanced general threat. For instance, a suicide attack took place a couple of weeks before the data collection of this study.

The hypothesis was tested that perceived death threat among Netherlands military staff of the headquarters in Kabul would undermine their willingness to collaborate with soldiers from other nations. Dutch soldiers in Kabul showed greater fear of death than soldiers who were not deployed. Critically, among the deployed soldiers, greater

fear of death was associated with lower willingness for international collaboration. Besides, lower acceptance of the risk of dying was also associated with lower willingness for international collaboration while, inversely, higher acceptance of the risk of dying was associated with more willingness for international collaboration.

These findings are supportive of the hypothesis that threat undermines international collaboration. The findings also accentuate the importance of research on the influence of threat on soldiers' social perceptions during the mission.

The Uphill "Hearts and Minds" Battle: The Role of Perceived Threat and Idealistic Motivation in Perception of a Local Population during a Peace Mission

In previous chapters we have already examined the role of threat on soldiers willingness to collaborate with soldiers of other nations. Soldiers are also confronted with the local population. It is widely acknowledged that winning the hearts and minds of the local population is crucial for mission success. In this chapter the influence of threat on evaluation of the local population is examined.

Theories on intergroup dynamics including terror management theory posit that threat has a negative effect on soldiers' evaluation of the local population. The study was conducted among soldiers who were deployed in a high risk mission in Uruzgan, Southern Afghanistan. The mission aimed to assist the reconstruction of the ravaged Afghani society. The study shows that during deployment, soldiers report a more negative view of the local population than before deployment. Perceived threat is found to affect this greater negativity towards the locals, with greater perceived threat during the mission leading to more negative evaluations of the locals. Soldiers' idealistic motivation was positively related to favourable changes in perceptions of the locals while involved in the mission.

These findings are of importance for several reasons. First, the results of this study contribute to the understanding of intergroup perception under threat. Consistent with previous studies on terror management theory, the present findings show that life-threatening situations polarize interpersonal evaluations that are based on social categorization. The convergence of the presently obtained findings, using actual life-threatening situations that are primarily induced through insurgent terrorism, with the laboratory findings obtained in the context of terror management theory, validates and underscores the relevance of further experimentally investigating the role of threat in military behaviour.

General Implications of threat for soldiers

Understanding the psychology of soldiers who are deployed under life-threatening circumstances is vital. It pertains to willingness to fight and keep going during combat. But, soldiers are not deployed in a black and white world with clear and simple notions of how to behave, who to collaborate with, and where to fight and risk one's life for. Moreover, mission success is defined as well by the soldiers' ability to perform in international coalitions, as by wining the 'hearts and minds' of the local population and winning peace rather than (just) the war. Soldiers have to do so in harsh, demanding and hazardous conditions.

The notion that soldiers during peacekeeping missions have to support peace processes and assist communities in post-war circumstances with a range of tasks other than fighting led the former secretary general of the United Nations Dag Hammarskjöld to state about peacekeeping: 'It is no job for a soldier, but only a soldier can do it'. This notion that soldiers' typical skills are not enough to be a soldier was also reflected by John F. Kennedy in 1961: 'You must know something about strategy and tactics and logic-logistics, but also economics and politics and diplomacy and history. You must know everything you can know about military power, and you must also understand the limits of military power. You must understand that few of the important problems of our time have, in the final analysis, been finally solved by military power alone.'

Such statements are still very present in peacekeeping operations up to this day. Soldiers find themselves confronted with tasks that differ from typical combat related tasks (Arbuckle, 2007; Chiarelli, & Michaelis, 2005; The Independent, 2003; Van den Aker, 2000). Soldiers' understanding of themselves, of close others, and of the world, is of importance for their actual performance. Seeing soldiers as instruments whose personhood does not affect their performance would be short-sighted. Soldiers' sense of significance of war and peacekeeping experiences, especially those relating to combat or threat experiences, is related to better psychological adjustment (Schok, Kleber, Elands, & Weerts, 2008). If not just for soldiers' tangible performance, their mental health is also served by setting the right expectations of soldiers' tasks and performance during deployment. Soldiers' cultural worldview and the attitudes that are part of it have to be well managed.

This is especially true given the role of cultural worldviews in dealing with one's mortality. *In vivo* threat, just as other natural reminders of threat, may enhance such awareness. The areas soldiers are deployed in are full of such reminders, and understanding soldiers' going about with such reminders is crucial. Seeing soldiers as professionals who are trained to perform in *in Extremis* circumstances, it may be too simple to expect soldiers to react just like participants in laboratory studies. Nonetheless, although

the question can be raised whether soldiers, given their training and preparedness, are sensitive to threat, this study is full of indications that they are.

Implications of threat for soldiers in current peacekeeping mission

Military missions in which soldiers are deployed oversees, in countries such as Iraq, Afghanistan or Sudan or anywhere else around the globe, will likely remain opportune for years to come. The political significance of these operations is often emphasized. Contemporary missions require military professionalism pertaining to combat, but also to humanitarian relief, and collaboration with other coalition partners. Soldiers are expected to be able to collaborate effectively with soldiers of other nations, be fierce fighters if necessary, and perform morally competent in order make sure the ethical standards of their society of the local populations are upheld and not violated. Winning 'hearts and minds' seems to be essential for acceptance of the mission and achievements of the overall mission goals in the long haul.

With such high political expectations, it is important that these expectations remain in line with soldiers' own views concerning their performance as a soldier. Concepts like the warrior ethos of the US military, or the soldiering model of the UK forces provide an idealized image in this context. In the current study, it was shown that soldiers' implicit and explicit beliefs about their performance, the values they adhere to, and the missions they are deployed in, do influence each other. This influence is more explicit once confronted with death threat.

Soldiers are trained to perform in *In Extremis* settings. Soldiers do not express high fear of death, whether or not deployed. Time after time, evidence was found that soldiers under threat are not pre-occupied with death as such, but more with their own reactions once under threat (**Boring & Van de Water, 1943; Dollard, 1944; Grinker & Spiegel, 1945, Shalit, 1988**). Turkish soldiers in our study reported in chapter 3 clearly expressed high acceptance of the risk of dying.

However, acceptance of the risk of dying is found to be associated with the willingness for international collaboration (Chapter 2, 3 and 4), mission-related motivation, and identification (chapter 2), and evaluation of the local population (chapter 5). Further study of factors that influence soldiers' acceptance of the risk of dying may be useful to learn about the risks soldiers are willing to accept in real-life threat situations and, hence, about what influences soldiers' dealing with death. In contrast to stimulating soldiers' acceptance of the risk of dying, failing to meet prerequisites for this acceptance may have adverse effects on soldiers' mission related attitudes. Lower acceptance of the risk of dying is associated with lower willingness for international collaboration, lower mission-related motivation, and deterioration of soldiers' view of the local population. Soldiers' mission-related motivation is shown to be lower among deployed soldiers

than among non-deployed soldiers (chapter 2). Soldiers who have perceived high threat in Iraq indicate to be more motivated than soldiers who have experienced less threat (chapter 2).

Implications for military leaders

Threat during peacekeeping missions evokes awareness of mortality, and this affects soldiers' mission related attitudes. Threat has direct and sometimes more indirect effects on soldiers' behaviors. Soldiers' attachment to their own group is clearly enhanced by threat and leads to greater willingness to fight, which can be perceived as positive. Willingness to fight protects the group and supports soldiers' operational readiness where combat is necessary to meet mission goals. The downside of this enhanced willingness to fight may be reflected in soldiers' greediness to fight or preference for combat when other means are more effective to meet the missions' goals.

Although soldiers unmistakably have to be ready to use violence when necessary, fighting is not the goal. Soldiers, however, may feel themselves provoked to react with violence in reaction to threat, or may feel that their professional honor is at stake. If such reactions are caused by automatic response of worldview defense in reaction to threat, than the question can be asked whether these reactions are appropriate given the mission's goals. If not, it is for military leaders and policy-makers, to define, explain, install and support military values that fit the mission.

Second, military power as necessity to support stability and peace in the world, depends on alliances and coalitions and, therefore, on international collaboration of soldiers in the field. However, the values that support soldiers to form cohesive groups, and that help to sustain and perform in the face of the threats of a military mission, may be at odds with soldiers' willingness to collaborate internationally. For this reason, the rationale for deployment has to be sound, well explained, and be acceptable for soldiers. Personal motivational forces may not directly affect soldiers' willingness to fight, but may have detrimental effects on collaborations with soldiers of other coalition forces. Alongside the dangers for effective performance, this may harm the trust on which international relations is built.

Thirdly, threat may enhance a negative attitude towards the population. The local population is seen at the key for long-lasting solutions in the peace processes. Developing constructive relations with the population depends on mutual understanding and building trust. As threat is associated with a more negative view of the local population, it is important to know whether such deterioration of the relationship with the local population is acceptable. Separating actors of violence from the general population may support peace initiatives over general distrust and retreat of soldiers to highly protected compounds and patrols with more focus on force protection than the mission

goals. In addition, focus on the real mission goals and soldiers' motivation to act upon those goals is a responsibility of the leaders and policy makes in the peace processes of a mission.

Fourthly, soldiers' mission-related motivations are both a responsibility of professional soldiers as of military leaders and policy makers. Providing the accurate information about the mission and the nature of it may help soldiers to form the right mindset. Moreover, soldiers derive personal meaning from their motivation and their experiences. This meaning may prove to be very important in accepting the risks during deployment, but also to sustain mental health and quality of life after deployment. Policy makers, first of all, have to take responsibility for the mission and all the men and women involved and have to explain the mission objectives to the general public. Military leaders, then, who are appointed to shape the conditions of success of a mission and are responsible for the soldiers they are in charge of should be the first to motivate the mission and reinforce the professional values of soldiers and the society they represent.

Finally, confrontation with threat has an impact on soldiers. Soldiers are humans, likely to react to threat in order to protect themselves and sustain their psychological equanimity. Real threat affects soldiers' mission related attitudes, despite the common expectation that death threat belongs to the picture of the military and training to perform in *in Extremis* circumstances. Mission related attitudes and behavior under threat has to be topic of study. Apart from studies of the effects of death threat on stress and mental health hazards, the effects on mission outcomes are also critically important.

Research helps to define appropriate measures of threat as well as soldiers' reaction to threat. Ideally such research should be conducted, despite all hardship and methodological complexity, as close as possible to soldiers in *in Extremis* circumstances. The methods in use and the specific circumstances of the mission will define in the end under which conditions research is possible. For commitment of soldiers, military leaders and policy-makers alike, good communication and feedback of research outcomes in an understandable way is also of vital importance. Military science is science like all other science, but needs to show its practical message for soldiers, to keep their commitment to participate in studies, i.e. filling out surveys, while facing the hardship of deployment.

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Summary

Coping with threat is inherent to the military profession. **Soldiers who are deployed** in high-risk missions like war or comparative conditions such as missions in Iraq, Afghanistan or other areas have to cope with this threat both professionally as on a personal level. In this dissertation, the influence of the awareness of the risks of the mission on the vision and attitude of soldiers towards mission-related aspects are topic of study.

Terror management theory inspired many of the ideas of in dissertation. The main premise of terror management theory is that once an individual is aware of his/her mortality, the individual will seek out firm establishment of one's self-worth and faith in one's worldview. Terror management researchers initially investigated their predictions in experimental contexts. Participants in lab experiments were subtly made aware of their own mortality by asking to think about their own death, and were found to exhibit self-esteem enhancing and worldview bolstering behavior. Later studies revealed that natural reminders of death resulted in findings as expected by terror management theory. Real life events such as terrorist attacks also showed reactions among the general population that were similar to the terror management lab findings and that fit the assumptions of this theoretical framework.

Soldiers, and other high-risk professionals, are likely to be affected by threat, which in turn may affect mission outcomes. Hence, study of the influence of threat on soldiers' mission related attitudes is highly relevant. Some effects of threat that are relevant in this context include stereotyping and preference for stereotypic objects, ingroup favoritism and prejudice, avoidance of insecurity, aggression towards others, and need for leadership. The studies in this dissertation focus on mission related attitudes that may have a direct impact on soldiers' behavior during a mission. The impact of threat on soldiers' attitude towards international and intercultural collaboration, acceptance of the risk of dying during deployment, their motivation for the mission, and their willingness to fight were subjected to systematic scrutiny. Before discussing the overall conclusions of this thesis, I will present a short summary of each chapter. I will close with the implications of the findings for military leaders, policy makers and academics.

Self-perceptions of Soldiers under Threat: A field study of the influence of death threat on soldiers

In chapter 2 on self-perception of soldiers under threat, soldiers who were deployed to Iraq and similar soldiers who were at the time at the barracks in the Netherlands were compared with regard to mission related attitudes. The first objective of this study was to examine differences in the perception of threat of soldiers who were confronted with *in vivo* threat during deployment in a mission and soldiers in the barracks who did not face threat. Finding such differences would show that *in vivo* threat as experienced by

soldiers during deployment may serve as mortality salience induction. Mission related attitudes were measured. This measurement included self-perceptions about performance, mission related motivation, identification with members of the ingroup (Royal Netherlands Army) and willingness to collaboration internationally. We also focused on implicit and explicit attitudes towards death.

The findings show no effect of threat on soldiers' fear of death or their acceptance of the risk of dying. However, in this study, the accessibility of death-related thoughts appears to be lower among soldiers in the threat condition. Moreover, soldiers' mission related motivation decreases under threat. In further analyses, the previously reported positive relation between higher acceptance of the risk of dying and greater willingness for international collaboration was corroborated, but only for deployed soldiers. Higher acceptance of the risk of dying was also associated with elevated compliance with the mission and internal motivation for the mission among soldiers under threat as well as at the barracks. Finally, among deployed soldiers, higher acceptance of the risk of dying was associated with higher identification with the Royal Netherlands Army.

Some soldiers only reported minor real threat whereas others reported vast threat, as indicated by statements that their own life, and that of their comrades have been at point of death. The most remarkable finding here was that more threat was associated with 1) higher acceptance of the risk of dying, 2) higher self-assessment of operational readiness, 3) more compliance with the mission and more internal motivation for the mission at hand, and 5) stronger identification with the Royal Netherlands Army compared to soldiers who had experienced low or medium threat. Additional analyses revealed that stronger identification with the Royal Netherlands Army was particularly associated with higher willingness for international collaboration.

To sum up these complex findings, it seems fair to conclude that deployed soldiers are confronted with *in vivo* threat, which affects their mission related attitudes. Moreover, the extent of real threat matters. Overall, soldiers' self-reported performance is higher under threat, while motivation for the mission seems to be jeopardized.

Accepting Death in the military: a Turkish-Dutch comparison

In chapter 3, the acceptance of the risk of dying among Turkish and Netherlands military cadets and mid-career officers and the impact of possible differences on soldiers' willingness for international collaboration was examined in 2004. Although both nations are members of the military alliance of NATO, clear differences in culture and security situation between the nations are apparent. Turkey has a strong military tradition. Despite the actual risk of dying due to national security issues, Turkish men, in general, consider it an honor to serve in the military. The Netherlands military tradition, whilst existing, is at least overtly less focused on honor. Also, Dutch society often has an uncomfortable relation with the military and the use of violence as such.

The Turkish officers in this study report significantly lower fear of death and greater acceptance of the risk of dying as well as higher willingness for international collaboration than their Dutch counterparts. Analyses of the influence of these factors on the willingness to collaborate internationally revealed that higher acceptance of the risk of dying was both for Turkish and for Dutch officers positively related to higher willingness for international collaboration. In the total sample, fear of death appeared to have a converse relation with international collaboration. Higher fear of death was related to lower willingness for international collaboration.

International Collaboration under Threat: A fieldstudy in Kabul

The study in chapter 4 was conducted in 2003 among military staff, while part of the headquarters' staff was deployed to lead an international peacekeeping mission in Afghanistan, and another part of the staff personnel remained at the permanent headquarters' location in one of the home nations. Staff personnel who were not deployed were not confronted with threat. Staff members who were at the time of the study in Kabul were confronted with enhanced general threat. For instance, a suicide attack took place a couple of weeks before the data collection of this study took place.

The hypothesis was tested that perceived death threat among Netherlands military staff of the headquarters in Kabul would undermine their willingness to collaborate with soldiers from other nations. Dutch soldiers in Kabul showed greater fear of death than soldiers who were not deployed whereas, but also reported higher acceptance of the risk of dying. Critically, among the deployed soldiers, greater fear of death was associated with lower willingness for international collaboration. Besides, lower acceptance of the risk of dying was also associated with lower willingness for international collaboration while, inversely, higher acceptance of the risk of dying was associated with more willingness for international collaboration.

These findings are supportive of the hypothesis that threat undermines international collaboration. The findings also accentuate the importance of research on the influence of threat on soldiers' social perceptions during the mission.

The Uphill "Hearts and Minds" Battle: The Role of Perceived Threat and Idealistic Motivation in Perception of a Local Population during a Peace Mission

In previous chapters we have already examined the role of threat on soldiers' willingness to collaborate with soldiers of other nations. Soldiers are also confronted with the local population. It is widely acknowledged that winning the hearts and minds of the local population is crucial for mission success. In chapter 5 the influence of threat on evaluation of the local population is examined.

Theories on intergroup dynamics including terror management theory posit that threat has a negative effect on soldiers' evaluation of the local population. The study was conducted among soldiers who were deployed in a high risk mission in Uruzgan,

Southern Afghanistan. The mission aimed to assist the reconstruction of the ravaged Afghani society. The study shows that during deployment, soldiers report a more negative view of the local population than before deployment. Perceived threat is found to affect this greater negativity towards the locals, with greater perceived threat during the mission leading to more negative evaluations of the locals. Soldiers' idealistic motivation was positively related to favourable changes in perceptions of the locals while involved in the mission.

General conclusions

The present research findings are of importance for several reasons. First, the results of this study contribute to the understanding of intergroup perception under threat. Consistent with previous studies on terror management theory, the present findings show that life-threatening situations polarize interpersonal evaluations that are based on social categorization. This study, however, performed in the specific context of soldiers during deployment in peacekeeping missions. While the military command is always subordinate to the political objectives, soldiers have to translate these for themselves while being subject to life-threatening circumstances. It is expected that do so in their professional role. The psychological effects of threat, however, show that soldiers under those circumstances are influenced by their military worldview. This underlines the importance of a proper "mindset". Soldiers under greater threat, however, seem to identify more strongly with typical military values such as military combat readiness, while in current missions it is required that they contribute to peace through a building relationships with the local population, and to contribute to rebuilding the war zone where they are deployed while possibly working with soldiers who may have a different military ethos. This study is therefore important for both military as politicians and policymakers who are responsible for the deployment of military personnel. Their objectives should be translated realistically to soldiers' morale that serves to support soldiers who have to act to sometimes divergent objectives. Military leaders, now, have the responsibility to the soldiers under their command to support them professionally so that the results of military operations under life-threatening circumstances fit in the society they serve. The convergence of the presently obtained findings, using actual life-threatening situations that are primarily induced through insurgent terrorism, with the laboratory findings obtained in the context of terror management theory, validates and underscores the relevance of further experimentally investigating the role of threat in military behaviour. However, studies in the military context must also contribute to practical relevance so that soldiers, even under difficult circumstances, keep their commitment to contribute to research in their specific context.

Samenvatting

Inzet onder levensbedreigende omstandigheden is inherent aan het militaire beroep. Militairen die worden ingezet in risicovolle missies in oorlogs- of daarmee vergelijkende omstandigheden zoals missies in Irak, Afghanistan of andere gebieden moeten daar zowel professioneel als als persoon mee omgaan. In deze dissertatie wordt de invloed van de bewustwording van de risico's van de missie op de visie en houding van militairen ten aanzien van missiegerelateerde aspecten onderzocht.

Terror management theory inspireerde veel van de ideeën in deze dissertatie. Het belangrijkste uitgangspunt van terror management theory is dat bewustzijn van de eigen sterfelijkheid als gevolg van opgeroepen gedachten aan de dood, de aanhankelijkheid aan het eigen wereldbeeld en positieve zelfwaardering zal bevorderen. Veel van de onderzoeken die tot deze inzichten hebben geleid zijn in laboratorium studies met doelbewuste manipulaties over sterfelijkheid tot stand gekomen. Recente terreuraanslagen zoals de aanslag op het World Trade Centre op 9/11 of de aanslag op de spoorwegen in Madrid 11/3 hebben geleid tot reacties onder de publieke opinie die lijken op door de terror management theorie voorspelde en verklaarde uitkomsten.

Militairen en andere high-risk professionals, zullen waarschijnlijk ook beïnvloed worden door in vivo levensbedreigende omstandigheden, die op hun beurt van invloed kunnen zijn op hun houding en gedrag tijdens missies en daarmee op de missie resultaten. Sommige effecten van dreiging die in dit verband van belang zijn, zijn onder meer stereotypering en voorkeur voor stereotype voorwerpen, in-group favoritisme en vooroordelen, het voorkomen van onzekerheid, agressie ten opzichte van anderen, en behoefte aan leiderschap.

De studies in dit proefschrift concentreren zich op de missiegerelateerde attitudes die een rechtstreekse invloed hebben op het gedrag van militairen tijdens een missie. De invloed van levensbedreigende omstandigheden op de houding van militairen ten opzichte van internationale en interculturele samenwerking, de aanvaarding van het risico op sterven tijdens de inzet, hun motivatie voor de missie, en hun bereidheid om te vechten zijn onderzocht. In deze dissertatie worden vier onderzoeken gerapporteerd.

Self-perceptions of Soldiers under Threat: A field study of the influence of death threat on soldiers

In hoofdstuk 2 worden percepties van militairen onder dreiging in Irak vergeleken met die van militairen op een kazerne in Nederland. Het eerste doel van deze studie was te onderzoeken of er verschillen zijn in de percepties ten aanzien van de missie tussen deze twee groepen. Dergelijke verschillen zouden de verwachting ondersteunen dat militairen door in vivo dreiging tijdens een uitzending worden beïnvloed. Diverse missiegerelateerde attitudes zoals zelfpercepties over prestaties, missiegerelateerde

motivatie, de identificatie met de leden van de in-group en de bereidheid tot samenwerking op internationaal vlak, en impliciete en expliciete houdingen ten opzichte van de dood zijn in deze studie vergeleken.

Uit de bevindingen blijken geen verschillen van dreiging op angst voor de dood of aanvaarding van het risico te kunnen sterven tijdens de missie. De toegankelijkheid van doodgerelateerde gedachten blijkt echter lager te liggen bij de militairen die onder daadwerkelijke dreiging verkeren. Ook wordt een lagere missiegerelateerde motivatie gerapporteerd onder dreiging. Bij de verdere analyse werd een positieve relatie tussen hogere aanvaarding van het risico van de dood en grotere bereidheid tot internationale samenwerking gevonden onder militairen die op uitzending zijn. Hogere acceptatie van het risico van de dood werd ook geassocieerd met een grotere instemming met de missie en interne motivatie voor de missie. Ten slotte werd een hogere aanvaarding van het risico van de dood geassocieerd met een hogere identificatie met de Koninklijke Landmacht onder uitgezonden militairen.

Onder uitgezonden soldaten in deze studie verschilde de mate van ervaren dreiging van laag tot hoog. De meest opmerkelijke bevindingen van analyse van deze verschillen waren dat meer dreiging werd geassocieerd met 1) een grotere aanvaarding van het risico van de dood en 2) een hogere zelfevaluatie van de operationele gereedheid, 3) meer instemming met de missie en grotere interne motivatie voor de missie en 4) een sterkere identificatie met het Koninklijke Landmacht. Verder is gebleken dat een sterkere identificatie met de Koninklijke Landmacht wordt geassocieerd met een hogere bereidheid tot internationale samenwerking.

Op basis van deze bevindingen lijkt het reëel om te veronderstellen dat militairen tijdens uitzending worden geconfronteerd met in-vivo dreiging en dat deze dreiging van invloed is op hun missiegerelateerde attitudes. Bovendien is de mate van reële dreiging van belang.

Accepting Death in the military: a Turkish-Dutch comparison
In hoofdstuk 3 wordt de aanvaarding van het risico van de dood en de invloed hiervan op de bereidheid tot internationale samenwerking onder aspirant en ervaren officieren in Turkije en Nederland vergeleken. Hoewel beide landen zijn lid van de militaire alliantie van de NAVO, zijn er duidelijke verschillen in de cultuur en de veiligheidssituatie in deze 2 landen. Turkije heeft een sterke militaire traditie waarbij ondanks het reële risico van sterven als gevolg van interne veiligheidsproblemen de bereidheid onder Turkse mannen om dienst te doen in het leger hoog is. In de Nederlandse militaire traditie is deze bereidheid op zijn minst minder expliciet.

De Turkse officieren in deze studie tonen dan ook een aanzienlijk lagere angst voor de dood en een grotere aanvaarding van het risico van de dood evenals hogere bereidheid tot internationale samenwerking dan hun Nederlandse tegenhangers. Analyse van de invloed

van deze factoren op de bereidheid om samen te werken op internationaal niveau laat zien dat hogere aanvaarding van het risico van de dood onder zowel Turkse als Nederlandse militairen positief gerelateerd is aan hogere bereidheid tot internationale samenwerking. In de totale steekproef bleek verder dat angst voor de dood een negatieve invloed heeft op de bereidheid tot internationale samenwerking.

International Collaboration under Threat: A fieldstudy in Kabul

In hoofdstuk 4 is de bereidheid tot international samenwerking expliciet onderzocht tijdens uitzending van militairen naar Kabul en vergeleken met militairen van dezelfde eenheid die op het hoofdkwartier in Münster werkten. De militairen die tijdens de studie uitgezonden waren naar Kabul werden geconfronteerd met dreiging terwijl dit voor de andere groep in Münster niet het geval was. Een voorbeeld van dreiging was een zelf-moordaanslag die een paar weken voor het verzamelen van de gegevens van deze studie heeft plaatsgevonden.

De hypothese werd getest dat gepercipieerde doodsdreiging onder Nederlandse militairen van de staf van het hoofdkwartier in Kabul zou leiden tot ondermijning van hun bereidheid om samen te werken met militairen uit andere landen. Nederlandse militairen in Kabul rapporteerden een grotere angst voor de dood dan militairen die op dat moment niet uitgezonden waren. Bovendien rapporteerden zij hogere aanvaarding van het risico van de dood. Onder de militairen in de dreigingcontext in Kabul werd een grotere angst voor de dood geassocieerd met een lagere bereidheid tot internationale samenwerking. Verder werd een lagere acceptatie van het risico van de dood ook geassocieerd met een lagere bereidheid tot internationale samenwerking, terwijl omgekeerd, hogere aanvaarding van het risico van de dood werd geassocieerd met een grotere bereidheid tot internationale samenwerking.

Deze bevindingen ondersteunen de hypothese dat dreiging de bereidheid tot internationale samenwerking ondermijnt. Deze bevindingen benadrukken ook het belang van onderzoek naar de invloed van de bedreiging op de maatschappelijke opvattingen van soldaten tijdens de missie.

The Uphill "Hearts and Minds" Battle: The Role of Perceived Threat and Idealistic Motivation in Perception of a Local Population during a Peace Mission

In hoofdstuk 5 wordt de invloed van de dreiging tijdens een missie op de perceptie van plaatselijke bevolking onderzocht. Militairen worden in huidige missies nadrukkelijk geconfronteerd met de plaatselijke bevolking. Het winnen van de 'hearts and minds' van de lokale bevolking wordt als cruciaal voor succes van de missie gezien.

Theorieën over de verhoudingen tussen groepen en terror management theory stellen dat dreiging een negatief effect heeft op het beeld dat militairen van de lokale bevolking hebben. Deze studie werd uitgevoerd onder militairen die daadwerkelijk zijn ingezet in

een hoog risicomissie in Afghanistan, die is gericht op de wederopbouw van de Afghaanse samenleving.

De studie laat zien dat de militairen tijdens de uitzending een negatievere houding ten aanzien van de lokale bevolking hebben dan voor de uitzending. De ervaren dreiging vertoont een sterke negatieve invloed op de beeldvorming van de lokale bevolking. Grotere dreiging tijdens de missie leidt tot meer negatieve evaluaties van de 'locals'. Missiegerelateerde motivatie is daarentegen positief gerelateerd aan de beeldvorming van de lokale bevolking tijdens de missie.

Algemene conclusies

Deze onderzoeksresultaten zijn om verschillende redenen van belang. Allereerst tonen de resultaten aan dat in vivo dreiging van levensbedreigende omstandigheden missiegerelateerde percepties van militairen beïnvloeden. In overeenstemming met eerdere studies naar terror management theory blijkt uit de huidige bevindingen dat levensbedreigende situaties op sociale categorisatie gebaseerde interpersoonlijke evaluaties polariseren. Deze studie is echter verricht in de specifieke context van militairen tijdens inzet in vredesmissies. De militaire opdracht is daar altijd ondergeschikt aan de politieke doelstellingen en militairen dienen daar ook onder levensbedreigende omstandigheden invulling aan te geven. Van militairen wordt dan ook verwacht dat zij zich in hun professionele rol aan deze opdracht houden. De psychologische effecten van dreiging tonen echter aan dat militairen onder die omstandigheden door hun militaire wereldbeeld beïnvloed worden. Dit onderstreept het belang van een juiste 'mindset' om ongewenste polarisatie te voorkomen.

In dit onderzoek lijken militairen zich onder dreiging sterker te identificeren met typische militaire waarden als de militaire gevechtsgereedheid, terwijl in huidige missies ook verlangd wordt dat ze bijdragen aan vrede door een relatie met de lokale bevolking op te bouwen, bij te dragen aan wederopbouw het crisisgebied waar ze zijn ingezet en daarbij samen te werken met militairen die wellicht een andere militaire ethos hebben. Deze studie is daarom van belang voor zowel militairen als politici en beleidsmakers die verantwoordelijk zijn voor de inzet van militairen. Hun doelstellingen dienen realistisch vertaald te worden naar de militaire moraal die militairen moet ondersteunen om soms uiteenlopende doelstellingen na te streven. Militaire leiders hebben daarin de verantwoording om militairen onder hun bevel professioneel te ondersteunen zodat de resultaten van inzet onder levensbedreigende omstandigheden passen bij de maatschappij die zij dienen.

De samenhang van de thans verkregen resultaten tijdens uitzending in crisisgebieden in samenhang met resultaten van laboratoriumonderzoek naar terror management theory, valideert en onderstreept de relevantie van verder experimenteel onderzoek naar de rol van de dreiging op gedrag van militairen. Onderzoek onder militairen dient daarbij ook bij te dragen aan praktische relevantie zodat militairen ook onder moeilijke omstandigheden gemotiveerd blijven om bij te dragen aan onderzoek in hun specifieke context.

Curriculum Vitae

Cornelis Evert van den Berg werd op 6 januari 1965 geboren te Zeist. Hij haalde in 1983 zijn Atheneum B diploma aan het Christelijk Lyceum te Zeist. Direct daarna begon hij aan zijn studie aan de Koninklijke Militaire Academie te Breda in de richting Weg- en Waterbouwkunde als cadet van het Wapen der Genie. Na het behalen van het officiersexamen in 1987 en het afronden van de opleiding in 1988 vervulde hij enige functies als officier bij het Wapen der Genie.

In 1991 begon hij aan de studie psychologie aan de Universiteit Utrecht, met Sociale en Organisatiepsychologie als hoofdrichting vanaf 1993. In 1994 behaalde hij zijn doctoraal diploma als psychologisch onderzoeker van interventies in groepen en organisaties.

In 1994 maakte hij de overstap naar het Dienstvak van de Militair Psychologisch en Sociologische Dienst van de Koninklijke Landmacht. In de periode 1994 – 2008 bekleedde hij diverse functies als militair psycholoog in de Koninklijke Landmacht waarbij de belangrijkste thema's leiderschap, stress en psychologische ondersteuning, algemeen gedragswetenschappelijk onderzoek, militaire ethiek en interculturele communicatie en onderhandelen waren.

In 2001 begon hij als Universitair Docent aan de Faculteit Militaire wetenschappen van de Nederlandse Defensie Academie te Breda waar hij in 2003 begon met de bestudering van de invloed van levensbedreigende omstandigheden op gedrag van militairen waarvan in deze dissertatie verslag wordt gedaan. Op dit moment is hij werkzaam als mentor van de Hogere Defensievorming op het Instituut Defensie Leergangen van de Nederlandse Defensie Academie te Den Haag.

Dit proefschrift gaat over de invloed van drei-
ging en specifiek doodsdreiging op de beeldvor-
ming, houding en moreel van militairen tijdens
inzet in vredesmissies. Het onderzoek dat aan
dit proefschrift ten grondslag ligt is grotendeels
verricht onder militairen tijdens uitzending. De
uitkomsten van dit onderzoek worden gebruikt
in onderwijs en onderzoek aan de Nederlandse
Defensie Academie.